

RURAL WAGES IN THE UNITED PROVINCES

(A study of the material collected during the
seventh Quinquennial Inquiry into Rural
Wages, conducted in December, 1944)

by

S. C. CHATURVEDI, M.A.,

Officer on Special Duty in the Department of Economics and Statistics, United Provinces. Author of "Housing Condition of Millworkers in Cawnpore," "A Review of Import and Export Trade of the United Provinces," etc.

with a PREFACE by

PROF. S. K. RUDRA, M.A. (CANTAB.),

Economic Adviser and Secretary to Government, United Provinces, Department of Economics and Statistics



ALLAHABAD:

SUPERINTENDENT, PRINTING AND STATIONERY, UNITED PROVINCES, INDIA

1947.

Contributors

- JOHN T. DUNLOP, Professor of Economics, Harvard University
NATHANIEL GOLDFINGER, Economist, American Federation of Labor and Congress of Industrial Organizations
LELAND HAZARD, Vice-president and General Counsel, Pittsburgh Plate Glass Company
EVERETT M. KASSALOW, Labor Adviser to United States Operations Mission in France, International Cooperation Administration
CLARK KERR, Chancellor, University of California (Berkeley)
RICHARD A. LESTER, Professor of Economics, Princeton University
E. ROBERT LIVERNASH, Associate Professor of Business Administration, Graduate School of Business Administration, Harvard University
FRANK C. PIERSON, Professor of Economics, Swarthmore College
LLOYD G. REYNOLDS, Professor of Economics, Yale University
ARTHUR M. ROSS, Professor of Industrial Relations, University of California (Berkeley)
MELVIN ROTHBAUM, Instructor in Economics, Harvard University
GEORGE W. TAYLOR, Professor of Industry, Wharton School of Finance and Commerce, University of Pennsylvania

Preface

When an eminent economist was recently asked to evaluate the present state of wage theory, he replied by denying that there was any theory to evaluate. His rejoinder may be taken as a measure not only of the need for a systematic treatment of this subject but also of the difficulties involved in its development. Under the circumstances, a book on wages which was limited to the confines of traditional theory could add little to what economists and their textbook interpreters have already written. On the other hand, a series of essays on a variety of subjects lying outside the theorists' usual domain would be of little value if they lacked a common frame of reference.

The most rewarding and most arduous task encountered in the preparation of this volume has been the working out of such a general framework. To this end, a series of meetings were held with the contributors, extending over three years, from 1953 through 1955. At these discussions preliminary drafts of the various chapters were reviewed and the principal issues in the wage field were intensively examined. The unifying theme which grew out of these deliberations, as well as some of the more important conclusions of the individual chapters, is set forth briefly here.

In economic theory, both in its traditional and contemporary presentation, wages are treated as an integral part of general theory. According to this view, as Frank C. Pierson makes clear in the opening chapter, the economy is seen as a system of mutually interacting parts in which all transactions, including the buying and selling of labor's services, are subject to certain broad, impersonal influences. Of these the most important is the maximization of individual gain pursued amid the stern necessities of the market. In wage determination, as in all other areas, the role of individual or group discretion (the power to influence or control) is felt to be severely limited. Moreover, even when some latitude is recognized, traditional analysis is limited to an extremely narrow range of influences. Thus, under conditions of monopoly or monopolistic competition, human behavior is held to be rigorously bound by the rules of market behavior, maximum gain is still said to be the single goal of economic activity, and the pursuit of this goal is treated in highly simplified, restrictive terms.

The view suggested in the opening chapter and developed in the rest

of the volume is that wage theory should be closely, but not exclusively, tied to general theory. All members of the group have come to be impressed by the latitude which those responsible for wage determination frequently possess and by the diversity of goals or perspectives which characterize their dealings. Contrary to the theorist's usual view, it is the wide range of variables ordinarily taken as given which is important to an understanding of wage issues.

A corollary of this position, which serves as another theme for the different chapters, is that wages are profoundly affected by the institutional environment in which wage setting occurs. The phrase "institutional environment" is admittedly vague, and a major purpose of the book is to give this expression specific content. One aspect of the environment which is of considerable relevance to wage determination consists of the different industrial relations practices of employers and employee groups, such as their approach to strike strategy, the status of union organizations, the scope of collective bargaining, and the like. For some purposes, a still broader frame of reference is indicated, including consideration of the reactions of rival employers and labor groups, the intervention of governmental bodies, and the effects of different social customs and community attitudes. Many of the pressures which impinge on wage-decision makers, and which may in some instances severely limit their discretion, are more social than economic in nature.

In Chapter 2, entitled "Wage Theory: A Management View," Leland Hazard analyzes the motives and compulsions which guide managers of large-scale enterprises in their wage decisions. In his discussion the firm's maintenance of status as a dependable supplier of goods, either with a few large customers who require uninterrupted supply or with millions of customers who are committed to a brand name, is found to be a primary factor in wage determination. It is held that production—not price or profit—is uppermost in management's mind, especially in periods of expansion, and that the firm will pay a higher-than-comfortable wage in order to avoid an impairment of status. There is a ceiling which management will not pierce, but its level is determined artistically rather than by the process of discreet analysis made familiar by economists from Adam Smith to John Maynard Keynes.

The chapter prepared by Nathaniel Goldfinger and Everett M. Kassalow, entitled "Trade Union Behavior in Wage Bargaining," underscores the role of unions and of union leaders in shaping wage relationships. Union policy decisions regarding either the detailed implementation of employment terms or the major breakthrough to new wage standards are viewed as a potent factor subjecting wage relationships to a variety of influences which would otherwise not obtain. Viewed historically, the central issue is whether union-generated wage pressures operate in, and

contribute to, an environment of increasing productivity and continuing economic growth.

In George W. Taylor's chapter, "Wage-determination Processes," the influences stemming from the needs and drives of management on the one hand and of employee groups on the other are fused in an analysis of different wage-setting processes. He finds that form affects substance, i.e., that the wage-setting process has an important bearing on the wage content of employer-employee agreements. Behind the different processes, however, and giving them their special significance, are the compulsions of a modern industrial relations environment. Among these, the consequences of nonagreement, as they bear on dealings between two parties of commensurate bargaining strength, frequently assume strategic importance. The conclusion follows that a theory of wages which does not embrace the principles both of market behavior and of industrial relations practice must remain sorely deficient.

Taking the first four chapters as a starting point, the other contributors analyze the interplay between market and institutional influences in the major areas of wage determination. The chapters in Part Two of the book are concerned with the structural characteristics of wages, structure being defined as the relationship between rates of pay for different categories of work within or between wage-decision-making units. The chapters in Part Three are focused on the general wage level and other broad aspects of national wage movements.

John T. Dunlop begins his chapter, "The Task of Contemporary Wage Theory," by reviewing the historical development of wage theory. He concludes that structural questions now command chief attention and that the structure as such is a useful analytic concept having institutional and administrative reality. Dunlop suggests that a given wage structure has an interior and an exterior aspect which the parties to wage determination take into account. Thus a commingling of internal and external influences determines the relationship between rates for representative, or key, jobs inside the firm; outside the firm various influences link the wage rates which a firm pays for key jobs to similar jobs in other firms considered comparable for wage-determination purposes. Such a group of firms is itself seen as constituting a particular wage structure, or contour, and—as in the case of the individual firm—is subject to certain internal and external influences.

In the next chapter, "The Internal Wage Structure," E. Robert Livernash explores these influences and their interrelationships in greater detail. Wages inside the plant are found to be the product of three major relationships: the relation to other jobs within the plant, to other jobs in the external market, and to the plant's level of labor costs. These influences are of different urgencies for different jobs, and a given plant

wage structure is a blending of all three types of determinants. The characteristics of the wage structure are thus perceived as being susceptible to generalization and to future development within the framework used in this book.

In the chapter by Arthur M. Ross, "The External Wage Structure," the analysis of the market and institutional determinants of wage structures shifts to the relationship *between* firms or decision-making units in a predominantly unionized environment. Within a rather wide range of discretion, he finds that decision makers tie wage rates to certain generally accepted norms, most notably the norm of comparative wages (a centripetal influence) and of ability to pay (a centrifugal influence). He concludes that the specifics of wage-rate structures are much affected by the internal and external organizational characteristics of firms and unions; the broader outlines of wage structures are more influenced by general economic influences, but even at this level the institutions of wage setting are not without significance.

In the chapter entitled "Economic Adjustments to Changes in Wage Differentials," which concludes this part of the book, Richard A. Lester discusses the effects of wage changes on the management of the firm. Paralleling the view of the three preceding chapters, he concludes that the range of discretion open to management in adjusting to a wage change is influenced by competitive and institutional factors as well as by the way the parties themselves react to the wage adjustments. Thus the consequences of wage differentials and wage changes are found to vary with the particular circumstances, including the character of union-management relations. However, the form and direction of the adjustments, since they are influenced by patterns of market and institutional control, are to some extent predictable.

Analysis of wages at the national level, the subject matter of the last three chapters, is typically concerned with broad market relationships and developments. In this volume, however, considerable weight is given to the influences of wage-fixing and related institutions as well as of the general social environment of the economy. In his chapter, "The General Wage Level," Lloyd G. Reynolds finds that changes in particular rates and in the average level of rates are linked by a number of ties and that the "causal" role of wage changes in periods of rising or falling prices depends on the institutions of the economy in question. However, among such institutional influences, speaking particularly of periods of rising prices, he assigns only minor importance to trade unions. He concludes that the decentralization of wage-fixing arrangements in this country makes the notion of a national wage policy largely illusory.

In the next chapter, "Labor's Income Share and the Labor Movement," which deals with the broadest issue considered in this volume, Clark Kerr

distinguishes between six types of union policy, ranging from "pure and simple unionism" to "direct- (governmental) controls" unionism. His conclusion is that only through quite deep penetration into economic decision making, either directly or indirectly through government, can unionism increase labor's relative share more than temporarily. He finds that the available data drawn from the experience of the United States and Britain, while admittedly inconclusive, are consistent with the view that normal collective bargaining has had no significant permanent effect on labor's share. Only when decision-making power is shifted away from the employer to the union or government are distributive shares materially affected. While the limits to income redistribution among functional groups tend to be narrow, Kerr underscores the importance of the institutional environment in which such redistributive efforts take place.

Melvin Rothbaum's chapter, entitled "National Wage-structure Comparisons," assesses the relative importance of market and institutional circumstances in explaining recent wage developments in France, Italy, and the United States. Comparison of wage changes from 1938 to 1952 in these three countries shows a trend toward increasing wage uniformity and a tendency to earmark larger shares of labor income for purposes other than direct wage payments. Inflation, employment changes, real-national-income limitations, and changes in the distribution of national income are important economic explanations. The minimum cultural subsistence standard and the centralization of the wage-determination system also affect the wage structure. However, the effects of centralized wage determination, and the structural rigidity that supposedly results from such centralization, appears to be exaggerated.

Taken in the sum, the chapters point to the conclusion that an adequate wage theory cannot be confined to an integration of wage principles with general economic theory. Rather, the analysis must be broadened to include institutional as well as market considerations. More particularly, wage determination varies as between companies, industries, and countries, depending on differences in production and product-market conditions, on the degree to which wages as a cost are critical, on the technical conditions of production, on organizational forms and the processes of wage determination, and on the social norms and customs of the economy. In certain environments, as in France, the broader outlines of wage relationships are largely shaped by institutional circumstances, whereas in others, like the United States, these relationships are primarily the product of market forces. At the level of both the individual firm and the economy as a whole, however, institutional and market influences intertwine in complex and changing patterns which defy simplified analysis.

Finally, in our review of the basic principles of wage determination, we

have been impressed by the latitude often enjoyed by the parties in so far as strictly market influences are concerned, the precise degree depending on the particular environment in which the dealings take place. We have been similarly impressed by the wide range of variables which must be taken into account in explaining wage relationships, these variable combining to yield many more possibilities in practice than are ordinarily considered. It is interesting to speculate on what the implications for economic analysis as a whole would be if it should be discovered that the range of administrative discretion and the complexity of response patterns are as wide in other economic areas as we have found them to be in the field of wage determination.

The editors wish to express their thanks to the Labor Relations Council of the Wharton School of Finance and Commerce of the University of Pennsylvania, whose financial support made this volume possible. Acknowledgment is also made to Gloria W. Grover for her assistance as editorial consultant.

GEORGE W. TAYLOR
FRANK C. PIERSON

Contents

PREFACE by George W. Taylor and Frank C. Pierson	vii
PART ONE. VIEWPOINTS AND ENVIRONMENT	
1. AN EVALUATION OF WAGE THEORY, by Frank C. Pierson	3
2. WAGE THEORY: A MANAGEMENT VIEW, by Leland Hazard	32
3. TRADE UNION BEHAVIOR IN WAGE BARGAINING, by Nathaniel Goldfinger and Everett M. Kassalow	51
4. WAGE DETERMINATION PROCESSES, by George W. Taylor	83
PART TWO. STRUCTURAL CHARACTERISTICS AND CHANGES	
5. THE TASK OF CONTEMPORARY WAGE THEORY, by John T. Dunlop .	117
6. THE INTERNAL WAGE STRUCTURE, by E. Robert Livernash	140
7. THE EXTERNAL WAGE STRUCTURE, by Arthur M. Ross	173
8. ECONOMIC ADJUSTMENTS TO CHANGES IN WAGE DIFFERENTIALS, by Richard A. Lester	206
PART THREE. NATIONAL WAGE MOVEMENTS	
9. THE GENERAL LEVEL OF WAGES, by Lloyd G. Reynolds	239
10. LABOR'S INCOME SHARE AND THE LABOR MOVEMENT, by Clark Kerr . .	260
11. NATIONAL WAGE-STRUCTURE COMPARISONS, by Melvin Rothbaum . .	299
INDEX	329

P A R T O N E

Viewpoints and Environment

FRANK

C. PIERSON

1. An Evaluation of Wage Theory¹

In contrast to developments in the field of wage-setting techniques, little progress has been made of late in our understanding of wage-setting fundamentals. Today employers and labor representatives can draw on an impressive fund of knowledge concerning such matters as how to run a community wage survey, establish a job-evaluation system, or install an incentive system, but on broader issues of principle, wage analysis commands surprisingly little esteem—probably less now than it did fifty or a hundred years ago.

The dangers attending this state of affairs need no elaboration. The wage question is too important, its ramifications too numerous, to be dealt with by piecemeal or opportunistic means. The decisions often have to be made under rapidly changing conditions, with consequences which can be only dimly foreseen, helping to explain but does not justify this lack of an acceptable conceptual framework.

Deductive versus Inductive Analysis

One factor contributing to the muddled state of wage economics is analysis. An axiom of all scientific endeavor is that deductive and inductive wage of inquiry should closely parallel one another, each enriching and forwarding the other. The study of wage phenomena, however, is marked by no such mutuality. Theorists frequently appear one subject, empiricists with another, the work of to be dealing with result.

There are a number of reasons for the unhealthy cleavage which has developed between these two approaches to the field. As in other areas, the training and temperament of the investigator reflects in the way he looks at his subject. More important bound to be reflected the subject itself makes this sharp dichotomy quite understandable. The "price" for labor in a given market at a given time over a given period

¹ In addition to my colleagues in the economics department I wish to express my thanks to George H. Hildebrand and at Swarthmore College, their many helpful suggestions. Any errors of commission or omission are the author's sole responsibility.

is notoriously hard to pin down and any number of pitfalls exist to trap the investigator. For some, this suggests that little is to be gained by inductive studies and that deductive analysis is the only route left open. For others, these difficulties are taken as further evidence that the essence of the subject lies in its variety and detail, underscoring the need for intensive inductive investigations.

The major reason for the sharp division in this field, however, grows out of a difference in viewpoint or vision. Fundamentally, interest in deductive work has centered on how the buying and selling of labor's services fits into the workings of the economy as a whole. The assumptions made about how employers and workers, either individually or collectively, approach their dealings with one another are the same as those made about purchases and sales in all other spheres of economic life. The conception of the entire system, as it were, comes first, and each of the individual parts, including the determination of wages, is fitted into the general framework wherever or however the logic of the system dictates. Thus, at the outset of his analysis of wages, Alfred Marshall stated:²

The nominal value of everything, whether it be a particular kind of labour or capital or anything else, rests, like the keystone of an arch, balanced in equilibrium between the contending pressures of its two opposing sides; the forces of demand press on the one side, and those of supply on the other.

J. B. Clark put the matter in these words:³

Looking at the transactions between employers and employed, can we see in them anything that causes wages to fluctuate about a standard which is more or less akin to the natural prices of goods? We shall at once find that there is a similarity between what the classical economists distinguished as the market price of goods and the market rate of wages . . . We shall find that it [the wage rate] is fixed in a way akin to that in which the immediate selling prices of goods are determined. Later we shall find that, in both cases, the market rates fluctuate about permanent standards.

It need hardly be pointed out that an analysis of wages along these lines must proceed at a high level of abstraction. Differences tend to drop from view; details about how wage rates behave in individual firms, industries, or regions are likely to be swallowed up in broad averages, long-term trends, or vague references to differences in efficiency and in the net advantages of the terms of employment. Thus, out of the myriad forces and changes continuously at work in the wage field, deductive

² Alfred Marshall, *Principles of Economics*, 8th ed. (New York: St. Martin's, 1920), p. 526.

³ *The Distribution of Wealth* (New York: Macmillan, 1902), pp. 81-82.

analysis singles out only the barest number deemed to be of controlling importance. The *method* is deliberately designed to remove many elements of the real world, but the *results* are said to reveal underlying forces which shape wage relations.⁴

The parallelism between this view and the attitude of many employers toward wage questions is striking. For management, labor is but one of a number of essential elements in the production-selling process. The nature of the market for the firm's product and the nature of the firm's relation to its principal customers on the one hand and to its principal rivals on the other largely dictate the amount of labor and other productive elements which can be employed. As to the terms on which labor is hired, employers tend to think of labor's price as being set "by the market" in much the same way as the price of raw materials, of equipment, or of any other factor of production. Phrases like "meeting our competitors' wage" and "paying what the market demands" are not mere euphemisms; they are part of the cost-price calculus which employers use to appraise every transaction and contract into which they enter. In point of fact, as Hazard shows in Chapter 2, the compulsions to which employers are subject in the hire of labor cannot be limited to market forces; and especially in large companies, there is likely to be considerable latitude in the choice of a firm's wage policy. Employer thinking in this area, however, generally appears to proceed from the opposite set of premises.

The parallelism between the deductive approach to wages and the attitude of employers is hardly accidental. The individual employer stands at the center of the economic theorist's world, and the greater part of the latter's work consists of translating into precise (some might say unintelligible) language, the principles which underlie business management's actions and decisions. Similarly, in emphasizing the influence of broad, impersonal market forces on wages as well as on all other transactions, the theorist and the businessman are inclined to stress the futility or danger of any efforts to deflect these forces through government or trade union means. By no means all theorists, nor all businessmen for that matter, have subscribed to this view. Two of the greatest economists who wrote in the classical tradition, Marshall and Pigou, were far from doctrinaire on the question, but the tone of their writings, as with most of the better-known theorists, was hostile to direct government-union efforts to raise wages.

Marshall's temperate viewpoint on the issue is indicated in the following passage:⁵

⁴ J. R. Hicks, *The Theory of Wages* (New York: St. Martin's, 1932), pp. 4-5. Deductive or theoretical analysis can be thought of merely as a tool of inquiry or as a set of generalizations about actual behavior; the term is used in the latter sense here.

⁵ *Elements of Economics of Industry* (New York: St. Martin's, 1892), p. 408.

The power of Unions to raise general wages by direct means is never great; it is never sufficient to contend successfully with the general economic forces of the age, when their drift is against a rise of wages. But yet it is sufficient materially to benefit the worker, when it is so directed as to cooperate with and to strengthen those general agencies, which are tending to improve his position morally and economically.

A. C. Pigou, in his *The Economics of Welfare*, takes essentially the same position as Marshall; nonetheless, he deals at considerable length with cases in which wages are "unfair" and in which interference to raise pay levels is justified and desirable.⁶

By contrast, the work of empiricists reflects a rather deep-seated skepticism about the notion that dealings between employers and workers are subject to the same principles or "laws" as are transactions in other spheres. While a certain surface similarity may be said to exist, empiricists tend to regard this notion as a source of much mischief. In their view, the essence of wage relationships is to be found in the details of individual firm, industry, or regional experience. While simplifying assumptions have to be made in order to keep the analysis manageable, it is felt they should be kept as close as possible to the particular class of cases under investigation. Broad propositions about wages and how they are related to the economic system as a whole are not stressed. To writers of this school, "it seems questionable in fact whether there can be one all-embracing theory of wages, which will sufficiently satisfy our sense of reality, and stand the test of historical experience."⁷

In a number of respects, as the chapter by Goldfinger and Kassalow demonstrates, the viewpoint of empiricists toward wages is in accord with the general approach of trade union spokesmen. Both underscore the variability of wage relationships and the essential difference between labor and commodity markets. Both emphasize the latitude which employers frequently enjoy in adapting themselves to wage changes and the new dimensions which are added to wage setting when competing firms bargain as a single group. Both tend to distrust any analysis which reduces dealings in the labor field to a single rule of behavior, especially when such reasoning is applied to worker-union decisions to offer or withhold

⁶ A. C. Pigou, *The Economics of Welfare*, 4th ed. (New York: St. Martin's, 1932), chaps. 14–17. For an uncompromising attack on such interferences, written by a contemporary theorist, see W. H. Hutt, *The Theory of Collective Bargaining* (Glencoe, Ill.: Free Press, 1954); this book was originally published in 1930. A more recent and much more balanced treatment is contained in K. W. Rothschild, *The Theory of Wages* (New York: Macmillan, 1954). The ideas of earlier classical economists on wages and unions are briefly summarized in Lionel Robbins, *The Theory of Economic Policy* (New York: St. Martin's, 1952), pp. 103–110.

⁷ J. W. F. Rowe, *Wages in Practice and Theory* (London: Routledge, 1928), p. 192.

labor. Since empiricists stress the scope which the parties often enjoy in deciding wage questions, it is hardly surprising that their approach has proved congenial to trade unionists.⁸

The limitations of these two methods of inquiry when pursued independently of one another are obvious. The weakness of deductive analysis in the wage field is that its findings are impossible to prove or disprove by appeal to the facts. The marginal-productivity theory of wages, for example, was arrived at almost wholly by deductive means many years ago; yet to this day it lacks any solid factual underpinnings, since it embodies concepts which defy empirical verification.⁹ In this connection one cannot help being struck by the rigor with which writers of a theoretical bent analyze wage relationships deductively in contrast to the extremely casual, unscientific methods they employ in checking their findings against the facts.¹⁰

The besetting weakness of inductive work, on the other hand, is its inability to link its conclusions together in some kind of unified whole. Indeed, the results of this work to date have been too limited, too pluralistic, and too loosely related to one another to justify being characterized as a body of principles at all. It would appear that if theorists have been too daring in drawing broad implications from their materials, empiricists have been too timid. Thus whatever preeminence equilibrium-wage theory still enjoys seems largely attributable to the fact that no alternative system of thought has been developed to replace it.

The need, then, is for fashioning concepts which will facilitate both deductive and inductive work—concepts which will prove general enough

⁸ Two noteworthy examples of this school are Sidney and Beatrice Webb, *Industrial Democracy* (London: Longmans, 1914), part III, and Rowe, *op. cit.* For a more recent treatment heavily weighted on the institutional and descriptive side, see W. S. Woytinsky and Associates, *Employment and Wages in the United States* (New York: Twentieth Century Fund, 1953), parts I and IV. A good summary of empirical work by American economists since 1940 is contained in Charles A. Myers, "Empirical Research on Wages," *Proceedings of Sixth Annual Meeting, Industrial Relations Research Association* (1953), pp. 241-251.

⁹ As a theorist who stoutly defends the marginal-productivity theory of wages, Fritz Machlup's observations on this point are particularly interesting; see Machlup, "Marginal Analysis and Empirical Research," *American Economic Review*, vol. 36 (September, 1946), pp. 519-554.

¹⁰ Thus Hicks states: "In normal circumstances, wages are determined by competition on both sides; if labourers compete for jobs, employers at the same time compete for labourers." Again, in discussing the relation between labor migration and wages, Hicks observes that ". . . recent researches are indicating more and more clearly that differences in net economic advantages, chiefly differences in wages, are the main causes of migration." While he is always careful to qualify such generalizations, the impression left by Hicks is that his conclusions square with the facts, an impression which to say the least is questionable. See Hicks, *op. cit.*, pp. 61, 76.

to provide a framework for more intensive analysis, yet flexible enough to allow for major differences in observed behavior. This, in turn, appears to call for a careful review of the wage field at a level of inquiry considerably nearer to day-to-day experience than the more traditional deductive analysis makes possible. The essays in this volume constitute a search for principles at this second level of inquiry; the conclusions reached should therefore be viewed as supplementing rather than as supplanting the findings of traditional wage theory. Indeed, this chapter and Chapter 5, by Dunlop, are the only two essays in the volume in which any explicit evaluation of theoretical analysis is attempted.

CONTEMPORARY THEORETICAL ISSUES

In canvassing the possibilities for bringing deductive and inductive wage analysis more closely together, consideration must first be given to the general role which a theory of wages can be expected to play. The answer turns on what are the most pressing questions currently being asked about wages, since these are the issues on which theory is expected to throw light. As the philosopher Ernest Nagel has said:¹¹

It turns out that questions of the *truth* of theories (in the sense in which theories of truth have been traditionally discussed) are of little concern to those who actually use theories. Reflective inquiry is instituted for the sake of settling a *specific* problem, whether it be practical or theoretical, and inquiry terminates when a resolution of the problem is obtained.

Our initial task, then, is to determine what questions in this field call for intensive examination at the present time.

To help in the task of finding answers to these central questions, wage theory need not include many of the details of observed behavior; in fact, the essence of theory is that it simplifies, i.e., abstracts from reality so that the essential can be distinguished from the nonessential. On the other hand, the theory need not be so abstract as to exclude all differences of detail either. The nature of the field or the present extent of knowledge about it may mean that a less generalized and perhaps less precise theory might well be more useful. As one writer puts the matter:¹²

¹¹ Ernest Nagel, "Principles of the Theory of Probability," in *International Encyclopedia of Unified Science*, vol. I, no. 6 (Chicago: University of Chicago Press, 1939), p. 74.

¹² Carl G. Hempel, "Fundamentals of Concept Formation in Empirical Science," in *International Encyclopedia of Unified Science*, vol. II, no. 7 (Chicago: University of Chicago Press, 1952), p. 46. For an illuminating discussion of methodology in economics, see Milton Friedman, *Essays in Positive Economics* (Chicago: University of Chicago Press, 1953), chap. 1.

In the theoretically advanced stages of science these two aspects of concept formation [empirical and theoretical] are inseparably connected; for, as we saw, the interpretation of a system of constructs presupposes a network of theoretical statements in which those constructs occur. In the initial stages of research, however, which are characterized by a largely observational vocabulary and by a low level of generalization, it is possible to separate the questions of empirical and of systematic import; and to do so explicitly may be helpful for a clarification of some rather important methodological issues.

The wage field seems to be in this in-between position. Understanding of the subject is still in a rather primitive state. The field is broken up into a number of quite different and isolated parts. At this stage, the most that can be expected is a theory that reduces the bewildering variety of cases to a manageable number of broad categories and provides a general framework for studying the relationships between them. If there are ultimate principles which can be said to underlie these relationships, their formulation can wait until this interim kind of theorizing is more advanced.

Issues of Primary Interest: Three Questions

Speaking broadly, the wage issues commanding most interest today center around questions of wage-rate *levels* and wage-rate *structures*, i.e., questions concerning the level of wage rates in the plant or firm, industry, region or nation, and the spread of wage rates around these different levels.¹³ Interest in each of these four areas, in turn, can be said to fall under three broad headings: (1) how choices in the determination of wages mesh with related choices or activities of worker and employer organizations; (2) why different kinds of wage relationships assume particular forms of patterns; and (3) what effects follow from changes in wage relationships.

These three parts of the subject are closely linked. An understanding of how wage-determination choices are related to a broad complex of employer-union-worker activities is essential to an understanding of why various wage patterns emerge and what their major effects appear to be; similarly, it is impossible to go very far in analyzing the determinants of wage levels and structures without considering how wage-setting choices are related to other aspects of employee-employer behavior or what repercussions follow from wage changes. In each instance, attention is focused on the particular factors deemed to be critical, but in reality these three parts of the subject are merely different aspects of a single

¹³ Unless otherwise indicated, the discussion refers to straight-time hourly rates (or earnings in the case of pieceworkers) plus the value of so-called "fringe benefits" in cents per hour.

whole. Since the greater part of the rest of this volume is devoted to a more detailed exploration of these matters, the following discussion of these three facets of the subject can be brief.

A decision about wage rates in a given situation has to be reconciled with a variety of other, often rather remote, considerations. Such matters as when wage rates should be changed and by how much, how they should be distributed among different employees, and what firms should be covered affect a wide range of personal and organizational interests. Disputes between employers and unions over wages are often part and parcel of conflicts over such diversified questions as union recognition, the closed shop, or the relative standing of rival union leaders. What is deemed a "good" wage settlement by one party or the other may depend on such considerations as what improvements in labor efficiency now become possible, what wage gains have been secured by other workers in nearby plants, or whether lower-wage competitors will be brought into line. A somewhat "higher-than-average" wage increase can work to the advantage of a particular company or employer group if it fits in with special recruiting requirements, enhances the firm's reputation as a good employer, or is a logical counterpart of a broad program for improving industrial relations. Similarly, a somewhat "lower-than-average" wage increase can work to the advantage of a particular group of workers or union if it means avoiding a prolonged strike, winning certain safeguards over discharges, or improving job prospects for certain skills. The fact that such terms as "average increase" and employer or worker "advantage" are difficult to define is itself an indication of the variety of objectives that a given wage change is likely to reflect.

Implicit in the foregoing is the view that the parties to wage settlements typically confront a rather wide range of choices and that the final outcome in a given case depends on how much weight they elect to give to a number of varying and perhaps conflicting considerations. Do these circumstances apply to less important wage adjustments as well as to the so-called "pace-setting" or key wage bargains? With certain modifications, the answer appears to be in the affirmative. If attention is focused solely on a few strategic rates, many pace-following settlements appear to be wholly mechanical in nature; this is especially likely to be true in highly inflationary periods, such as existed in the years immediately following World War II. If account is taken, however, of changes in the whole structure of a firm's rates, in such important "nonrate" elements in labor costs as shift premiums, pension contributions, etc., and in the way a company's wage structure is administered in terms of overtime premiums, promotions, and job-duty assignments, the parties typically exercise a considerable element of choice even in pace-following situations. Indeed, the very fact that there is some type of a pattern settlement

to which it has been decided particular firms should adhere is itself evidence of conscious design and deliberate choice.

Thus, a major task of wage theory is to help explain what alternatives confront parties to wage settlements and what considerations enter into making one choice or combination of choices rather than another. In this connection, there is a temptation to speculate about the "ultimate" objectives of employers, unions, and workers, but it is difficult to believe that anything very solid can be developed in this direction. Rather than try to pierce the inner recesses of the human or "collective" mind it would probably be more rewarding to find out what kinds of choices have been made in actual practice. The chapters immediately following this essay take this as their starting point.

Closely related to these matters is the broad question of the determinants of wage relationships. As in the analysis of how choices are reconciled in the wage field, highly simplified theorizing is likely to prove of little help. At the outset, it is important to make clear what kind of wage-rate relationship is under consideration—whether wages are being studied on a plant, industry, regional, or national level—since the controlling influences in each case are likely to differ. Attention must be given to the nature of wage-decision-making bodies—their size, degree of centralization, internal and external rivalries, etc.—to get an understanding of different traditions and customary attitudes that have developed in individual firms or industries; what is considered a "fair wage," for example, cannot be understood without probing into the different employer-worker groups' attitudes on such matters. As one writer has observed:¹⁴

In a hierarchical society such as ours, large issues of social status are involved in wage and salary scales. Pay and prestige are closely linked. . . . Once this rule is admitted as a factor in its own right, it is remarkable how effectively it explains much that, on a purely economic hypothesis, has to be explained away.

Thus, in some contexts, the standards and mores of a particular locality or region can have an important bearing on wage-rate relationships. In others, the chief controlling influence may be a gradual or sudden change in technology, in sources of labor supply, in the firm's competitive standing, or in the general sales-and-profits prospect of the industry.

The task of theory is to help reduce this bewildering array of influences to some kind of order without allowing the crucial elements in the wage-

¹⁴ Barbara Wootton, *The Social Foundations of Wage Policy* (New York: Norton, 1955), p. 68. See also H. A. Turner, "Trade Unions, Differentials and the Levelling of Wages," *The Manchester School of Economic and Social Studies*, vol. 20 (September, 1952), pp. 227-282.

setting process to be lost from sight. Indeed, the test to apply is whether a given theory, in simplifying wage relationships, helps bring out the most significant features of the wage-setting process. It is easy enough, on the one hand, to catalogue all the conceivable factors that impinge on different wage-rate levels and structures or, on the other, to set up a model from which almost all the complexities of the subject have been removed. The more difficult and important job is to develop generalizations that show how these determinants of wage-rate levels and structures are interrelated and what significance should be attached to each in different classes of cases.

Analysis of the effects following wage-rate adjustments at the plant, industry, regional, or national level is subject to much the same type of difficulty. Mention has already been made of the fact that the parties can materially alter the effects of a given wage change simply by the way wage systems are administered. One of the most elusive but important aspects of the matter is the effect of a wage change on the productiveness of workers and on the managerial efficiency of employers.¹⁵ A hardly less complex issue is the relation between wage-rate changes and shifts in labor *supply* between firms, industries, or regions, and the impact of wage changes on employer *demand* for different labor skills or for machine substitutes.

These matters call, in turn, for analysis of a wide range of subjects—the impact of wage changes on costs, prices, profits, and even employer-consumer expectations—the study of any one of which is beset with many difficulties and pitfalls. Beneath these issues lie such important but imponderable questions as the effect of wage changes on the growth or strength of unions, the development of employer bargaining associations, the competitive product positions of different firms and industries, and the level and distribution of new capital expenditures, savings, and national income.

These issues pose a dilemma even more baffling than that encountered in the analysis of choices and determinants: If in the interest of clarity a narrow framework is used, many important elements of the subject will

¹⁵ Earlier economists gave considerable attention to the former effect. In the course of a long discussion of the relation between increased wages and labor's efficiency, Marshall observed: "It is well recognized that even in western countries skilled labour is generally the cheapest where wages are the highest;" and again: "We conclude then that an increase of wages, unless earned under unwholesome conditions, almost always increases the strength, physical, mental and even moral, of the coming generation." (Marshall, *Principles of Economics*, pp. 531-532.) Later economists emphasized the "shock" effect of higher wages as a spur to more efficient management, especially the effect of wage pressures and various union practices on management. See Sumner H. Slichter, *The Challenge of Industrial Relations* (Ithaca: Cornell University Press, 1947), chap. 2.

doubtless be excluded; if in the interest of realism a broad framework is used, anything like definite conclusions will be put completely out of reach. Again, there seems to be no other recourse than to pick one's way between these two extremes, using theoretical constructs or hypotheses which are neither unduly simplifying nor hopelessly complicating. As before, the most fruitful approach would appear to be to formulate and test generalizations about the effects of wage changes in terms of a number of classes of cases, an approach that accords with the one adopted by the contributors to this volume.

To a considerable degree, the results derived from analyzing wage relationships in terms of choices, determinants, and effects depend on what concept of time is used. The results will differ, of course, depending on whether a very short or a very long period is assumed, since adjustments can be made under the latter circumstances that are ruled out under the former. In any given period, however, the investigator has to ask himself the more basic question: whether the different sources of change are to be studied singly, the remaining changes being held constant, or whether attention is to be centered on the interrelationships between changes occurring in given situations. In short, the investigator must choose between a predominantly static and a predominantly dynamic kind of analysis. Under static analysis, the adjustments which follow a given change yield a precise result; under dynamic analysis, a variety of results become possible. Under static analysis, a given wage adjustment is viewed as occurring within a system of unchanging relationships in which a delicate balancing of counteracting forces is continuously being realized; under dynamic analysis, the system of relationships within which wage adjustments occur is itself changing, the outcome being very possibly a cumulative, rather than a self-correcting, change.

As between these two broad approaches, the contributors to this volume lean towards the dynamic view of wage relationships. This is not to say that they eschew the principles of static-equilibrium analysis altogether but rather that—compared to theorists who write in the classical tradition—they give much more weight to the dynamic aspects of their subject. The significance of this change in emphasis can best be understood against the background of traditional, or stationary-equilibrium, wage theory—a theory which present-day economists have already modified in a number of important respects.

POSTULATES OF EQUILIBRIUM WAGE THEORY

Wage theory consists of two quite different branches: partial- and general-equilibrium analysis. Theorists customarily use partial analysis to explain the wage levels of individual firms or industries and, until recently,

they have used the same framework to analyze the national wage level and labor's share in the national income. Today, the approach to wages in this latter area has been greatly altered by Keynesian general-equilibrium analysis, although many economists still use the traditional approach in explaining labor's income share.¹⁶ Moreover, the fact that there is a basic similarity between these two ways of analyzing wage issues should not be overlooked. Both use essentially the same method of investigation; both proceed on the same underlying assumptions about individual economic behavior; and while the results of the two approaches *may* be interpreted as mutually contradictory, logical necessity does not require it.

As in other aspects of economics, the foundations of partial- and general-equilibrium wage analysis consist of three main elements: the concept of maximization, the method of static analysis, and the conditions of equilibrium. As to the first, the notion that buyers and sellers of labor's services seek to maximize some magnitude (profits, real income, net satisfactions, etc.) is considered essential, since in the absence of some such assumption there would be no rational basis for expecting one wage rate to prevail rather than some other. The maximizing calculations are assumed to relate to the price paid for labor; that is, it is assumed that the changes which buyers and sellers are constantly making to achieve maximum gains result from, and are reflected in, changes in the wage rate for the labor in question. It is assumed that a wage increase, for example, will lead employers to recalculate how much labor should be hired in order to maximize profits, while workers will be led to recalculate how much labor or labor effort should be expended in order to maximize the net benefits from their work. This same highly simplified view of employer-worker motivations has been carried over into general-equilibrium analysis, although in the latter, attention is focused on aggregate, not individual-firm, equilibrium conditions.

The second characteristic of theoretical work in the wage field is the use of static or stationary analysis. According to this method, certain severely limiting conditions are set up which are assumed to remain unchanged for the period under examination, while the effects of altering one variable in the system are traced through various paths of adjustment. Later, the limiting conditions may be relaxed in order to bring the analysis closer to reality. Thus, in order to isolate the effects of a change in wage rates on a particular group of firms, the assumption is made in partial-equilibrium analysis that all other conditions affecting the firms' revenues and costs, such as consumers' tastes, the level and distribution

¹⁶ The term "general equilibrium" as used here refers to the Keynesian theory of national-income determination, not to the general-equilibrium system of pre-Keynesian economists like Leon Walras.

of national income, the techniques of production, and the number of competitors in both the product and labor market, remain the same. If the period of time under study is very short, it is postulated that the amount of capital invested cannot be changed and that there will be no opportunity for firms to enter or leave the industry. If a longer period is involved, shifts in the so-called fixed factors can be allowed for. The essential feature of this method of inquiry is that the various limiting conditions are relaxed one at a time, so that the effect of each change can be made clear as the analysis is brought closer to reality.

In general-equilibrium analysis this same procedure is followed, although the relationships which explain the national income level and the national wage level are, of course, not the same as those involved in the theory of the firm. According to so-called Keynesian theory, the determinants of national income can be reduced to a few simple relationships, and if certain assumptions are made about the nature of the supply of labor and of other factors of production, these same determinants also control the nation's real-wage level. As before, the analysis consists of changing one of the determinants, the others being assumed to remain the same, and tracing the effects through different channels. If, as in dynamic analysis, the other determinants are not assumed to remain unchanged, the effects of altering a given variable become less predictable and the results less precise.

The third element in the approach which theorists have taken to wage determination, the notion of equilibrium, is a logical counterpart of the two points just discussed. If the market for a given type of labor is assumed to be subject to a specified set of conditions and all buyers and sellers are assumed to be seeking to maximize some definable magnitude, then a change in any one of the specified conditions will call forth certain adjustments until maximum gains of all parties are once again realized. This holds true for analysis of national income levels as well as of individual firms or industries. The channels through which the equilibrating forces move are different, but the notion that the system is essentially self-balancing or self-correcting underlies both approaches. On the other hand, dynamic treatments stress the possibility that the adjustments may, at least within certain limits, assume a cumulative character.

Weaknesses of Stationary-equilibrium Analysis

A number of questions, as noted below, can be asked about the appropriateness of an analysis of wage relationships based on these three elements. The single point emphasized here is that stationary-equilibrium analysis puts wage issues into a frame of reference which can be considered as either highly restricting or extremely broad; especially is this true of partial-, as opposed to general-, equilibrium formulations.

Consider for example, the notion of maximizing behavior on which the entire structure of partial-equilibrium theory rests. If this notion is given specific content, as when it is said that employers seek to maximize profits, other hardly less important objectives are lost from view. If it is broadened to allow, say, for differences in the net satisfactions or aspirations of different workers or worker groups, the notion can be said to explain everything—and at the same time nothing. Or take the concept of stationary equilibrium as a way of getting at the major forces shaping wage relationships. An essential aspect of the subject is that these forces, either as determinants or effects, do not refer to the same point of time but are continually changing and interacting with one another over periods of time. Thus, some part of any one decision made by buyers and sellers of labor depends on decisions made in prior periods under conditions probably quite different from those now in existence; another part depends on expectations of future conditions regarding prices, costs, output, employment, and the like.¹⁷ Stationary-equilibrium analysis, as such, precludes attention to these all-important facets of market behavior and any observations which theorists may make about these matters must rest on grounds which lie wholly outside their system of thought.

This rather harsh judgment is somewhat modified, but not fundamentally changed, when the principles of stationary-equilibrium wage theory are examined more directly and in somewhat greater detail. These principles can be grouped under three headings: competitive, noncompetitive, and general-equilibrium theory. Attention is now turned to an evaluation of theoretical work in these three areas.

COMPETITIVE THEORY

The three postulates of stationary-equilibrium theory just discussed, when combined with the assumption that labor is bought and sold under conditions of pure competition, form the core of traditional wage theory.¹⁸ This view of the major forces controlling wage relationships, commonly referred to as the marginal-productivity theory, envisages a world of many individual buyers and sellers, so many that no one of them can affect the prevailing wage; a world in which all buyers and sellers are seeking to maximize their satisfactions (i.e., their "returns"

¹⁷ Joseph A. Schumpeter, *History of Economic Analysis* (New York: Oxford, 1954), p. 963.

¹⁸ The importance of the competitive assumption for the general body of economic theory is indicated by Hicks, when he states that abandonment of the competitive hypothesis threatens "wreckage . . . of the greater part of general equilibrium theory." J. R. Hicks, *Value and Capital*, 2d ed. (New York: St. Martin's, 1939), p. 84.

over "costs") and in which the effects on total costs and returns resulting from small (marginal) changes in the amounts of labor offered or demanded can be determined; a world in which the units of labor in question are perfectly homogeneous and the workers supplying this labor are perfectly mobile; finally, and most importantly, a world of stationary equilibrium in which all other conditions—including the prices of products, technological conditions, and the flow of money purchasing power through the economic system—remain unchanged.

Under these conditions the only wage rate that will satisfy the conditions of equilibrium is the one at which each buyer and seller is receiving a money return for an added unit of product which just covers the amount of expenditures or sacrifice incurred in producing such additional output. Various demand and supply configurations can be assumed, notably those associated with different time dimensions, different ratios of variable to fixed costs, and different technological data, but the essential element in all cases is that added output (and thus added input) will eventually entail more cost or sacrifice than is gained in the way of added revenue or benefit. If every buyer and seller has reached a position where the addition of another unit of output will entail more in the way of cost than in revenue, there will be no incentive for anyone to move or change his scale of operations, and a condition of equilibrium will have been achieved.¹⁹

Bearing of Competitive Theory on Three Main Questions

How does this view of wages answer the three main questions with which contemporary wage theory is concerned—how choices among alternative wage policies are made, what determinants shape wage relationships, and what effects follow from wage changes? The answer in each case is essentially the same—any change in conditions on either the supply side or the demand side of the market for labor will touch off a series of adjustments which will automatically bring about a new equilibrium position. The competitive theory of wages says nothing about policy choices among alternatives, because in a perfectly competitive market, buyers and sellers must either sell on the same terms as rivals or be excluded altogether. The theory does not explain in any detail what the determinants of wages are—only that the sole basis for every increase or decrease in wages is a change in labor's marginal product and that

¹⁹ If allowance is made for effects of general wage increases on either the efficiency or supply of labor, more than one equilibrium position is possible, but this involves going outside the assumptions of stationary analysis. Economic theorists have long given attention to such effects, but the discussion of such matters has been inconclusive; see, for example, J. R. Hicks, *The Theory of Wages* (New York: St. Martins, 1932), chap. 5, and Rothschild, *op. cit.*, pp. 29–31, 38–48.

whenever such a change occurs, the buyers and sellers of labor automatically adjust themselves to the new situation.

Nor does the theory throw much light on the manifold effects that are likely to follow from wage changes beyond the proposition that individual employers and employees must meet the "terms of sale" prevailing in the market or suffer displacement. Wages under competitive conditions are extremely, if not perfectly, flexible and the amounts of labor demanded by employers and offered by workers under these conditions are extremely, if not perfectly, responsive, or elastic, with reference to such changes. Accordingly, a rise in the relative wage level of a particular firm, industry, or region will cause the quantities of labor being bought and sold to change until equilibrium is regained.²⁰ In short, the competitive hypothesis is about the simplest, most straightforward view of wage determination imaginable, with all the advantages and disadvantages associated with highly abstract formulations of this type.

When viewed against the complex and shifting network of relationships involved in the wage-determination process, discussed above, competitive theory seems completely out of touch with the world of actuality.²¹ Except in a very loose or general sense, this hypothesis affords a poor basis for explaining wage relationships; when combined with the other assumptions of partial-equilibrium analysis it provides too limited a framework for analyzing the issues which command greatest interest in the wage field today.

Useful Aspects of Competitive Theory

While the hypothesis of pure competition does not provide much help in analyzing wage relationships, it should certainly not be lost sight of entirely. Three aspects deserve particular attention in this connection:

1. The notion of a purely competitive labor market is frequently used to provide "bench marks" for studying contrasting market situations. There can be no objection to this procedure on analytical grounds as long as it is made perfectly clear that the bench marks have no more than a theoretical or expositional significance. One may still question whether, in view of the impossibility of determining how far a particular

²⁰ Strictly speaking, the purely competitive hypothesis assumes that the individual firm is able to expand its labor force by any desired amount without raising wages, because its size is small relative to the total number of buyers. An entire industry could hardly be assumed to do so without attracting labor from other uses, which in turn would entail raising the industry's relative wage level; thus, the industry's supply curve of labor is generally assumed to be upward sloping.

²¹ See, for example, Richard A. Lester, *Hiring Practices and Labor Competition* (Princeton, N.J.: Princeton University Press, 1954), especially chaps. 4-6.

wage deviates from the competitive norm, this procedure has any value, but this is quite different from saying that the competitive hypothesis is invalid.

The same holds for the view that, regardless of how wages are set in practice, pure competition is the standard or ideal that *should* be followed as closely as possible. Just what the economic world would be like if all firms and unions were small enough and numerous enough even to approximate the conditions of pure competition is difficult to say; the proposal involves such broad questions of social policy that a dogmatic conclusion one way or the other seems out of the question. Nonetheless, the case for competition is a powerful one because it generally coincides with consumers' interests. Wherever active competition exists, employers and workers alike must be prepared to meet the terms of innumerable rivals or fall by the wayside. Wherever employers or workers combine to withhold the benefits of such rivalry from consumers, the major purpose of economic activity is defeated. One may quarrel with the notion that combinations in the labor field actually have this effect, but the possibility certainly exists and much is to be said for an analysis which makes the nature of this danger clear.

2. The competitive hypothesis is useful in explaining general, long-term trends in wage relationships. As has frequently been noted, the economists of the nineteenth century tended to view the wage problem in these terms, with particular reference to the question of labor's share in the nation's total output. For such questions as the relative wage position of general categories of labor in different regions or countries over long periods, the competitive hypothesis is useful in directing attention to certain important influences which have been at work. Difficulty comes when it is also used to explain the more detailed aspects of wage experience in particular industries or localities over shorter periods of time—the kinds of questions commanding most interest today.

3. Even in the latter area, the role played by competitive forces should not be entirely lost sight of. The variety of choices facing the parties to wage bargains and the multiplicity of channels along which both the determinant influences and the impact effects of wage adjustments move have already been mentioned. These circumstances underscore the possibility that competitive pressures may be exerted indirectly or by round-about means, even though the immediate conditions surrounding the buying and selling of labor seem anything but competitive. The crux of the matter is the availability of alternatives or substitutes. If conditions on the supply side are such that workers, whether unionized or not, have alternative job openings to which they can readily turn, powerful competitive pressures will be brought to bear on individual firms to meet prevailing standards of wages, working conditions, etc. Where alternative

job openings do not exist, as in periods of widespread unemployment, pressures in the opposite direction will begin to assert themselves as employers, both large and small, seek out different means for trimming costs and defending sales positions. These strategems will vary, depending on which give promise of most gain for least cost. They may be confined to shifts in product lines, changes in production methods, or elimination of unproductive labor; as such, they may not involve changes in basic wage rates at all. The results, however, are no less important for the workers in terms of total rewards derived from the job and for the employers in terms of costs and revenues. As a broad but pervasive influence continually impinging on employer-worker relationships, competition must still be accorded an important role in the theory of wages.

NONCOMPETITIVE THEORY

In view of the limitations which mark theorizing about wages on the assumption of pure competition, it is not surprising that economists have long given attention to formulations based on the noncompetitive hypothesis. The simplest construct, pure monopoly, stands at the other extreme from pure competition, and it has the advantages as well as the disadvantages of any polar case. In a pure selling monopoly, a single organization controls all the supply, and buyers (in this case, employers) have no alternative sources or substitutes to draw on; in a pure buying monopoly, or monopsony, there is only one buyer, and sellers have no opportunity to sell their services elsewhere.²² In either case, the wage is set at whatever level the party enjoying the monopoly advantage decides will yield him the best possible results. The theory should not be interpreted as meaning that the monopolist can adjust the wage to any degree without suffering adverse effects but only that within a given range he suffers no adverse effects from rival sellers or buyers offering more attractive conditions of sale. Moreover, within this range he need have no concern about possible rivals invading his private domain in the future; in fact, he can count on receiving a supernormal level of returns indefinitely.

It need hardly be pointed out that this conception of wage setting is quite as far removed from the real world as that of pure competition, a complete monopoly in which there is only one buyer or seller of labor being rarely, if ever, found in practice. Few types of labor are sold to only one employer or even to one closely knit employer group. Few unions have been able to cut off employers from *all* sources of substitute

²² If the employer's monopoly is in the sale of products rather than in the purchase of labor, the effects on labor's wage and employment result from restrictive practices followed in the product market.

labor or methods of production for any considerable length of time. There may be some instances in which local skilled-worker groups have achieved this measure of power for rather long periods, but there is no evidence to suggest that employers in such situations are incapable of forming their own "countermonopoly" bargaining organizations.

More importantly, both monopoly and competitive theory use essentially the same narrow frame of reference based on the same highly restrictive postulates of partial-equilibrium analysis. The notions that an employer monopoly seeks to maximize some definite magnitude, such as short-run or long-run profits, that regardless of its size it can act as a monopolist and still keep within the *ceteris paribus* bounds of partial-equilibrium analysis, and that any disturbance pushing a monopolist away from its equilibrium position sets in motion forces tending to restore this position again—these notions are hard to vest with much meaning. When conditions permit the employer a considerable range of discretion in choosing between various wage policies, hiring practices, and the like, differences between choices, not their common elements, become the center of interest.

As for its applicability to trade union activities, monopoly theory can easily become downright misleading. Without the anchor of maximum profits, what becomes of the theory? If union wage rates move together throughout an industry or group of industries, what is left of the *ceteris paribus* assumption? In what sense can it be said that the wage for a particular class of union labor is in equilibrium but for another class it is not? It would seem that the concepts of monopoly theory, which of course were originally designed to explain a certain type of commodity market, throw very little light on the major aspects of wage-setting behavior.

Main Contribution of Monopoly Theory

The principal contribution of monopoly theory to the wage field is the general direction it has given to the study of the subject. The essential characteristic of monopoly is absence of competition, in the sense that a seller or buyer is insulated against compelling or exacting pressures from rivals. This is also a common characteristic of labor markets. In describing the determinants and consequences of wage changes, labor economists repeatedly stress the numerous barriers to the operation of competitive adjustments in this area, both on the side of employees and employers. If workers are attached to a particular firm, area, or industry in such a way that a decrease in their wage will have little or no effect on the amount of labor supplied, the employers can act as monopsonists and can lower rates without losing workers. If the employers, on the other hand, continue to hire the same amount of labor even when wages go up, a

union representing all the workers involved can act like a monopolist and raise wages without losing job opportunities. The fact that they do not always do so or that conditions in the real world are not so clear-cut as the foregoing suggests should not be allowed to obscure the substantial element of truth which monopoly theory contains.

If the theory is modified to include different degrees of monopolistic or noncompetitive control, the concept becomes somewhat blurred, but its essence remains. Thus some of the most important advances in wage theory in recent years have been built around formulations of this type. That wage rates are typically rigid rather than flexible, that wage rates in different markets frequently move together, that wage-rate differences persist indefinitely among workers doing the same work at the same level of efficiency in the same industry or area—these are facts which can hardly be reconciled with the competitive hypothesis but which the non-competitive hypothesis can readily explain.

Bilateral Monopoly View of Wage Theory

One type of noncompetitive market deserving special mention is bilateral monopoly. Roughly speaking, this type of monopoly obtains whenever a union can raise the wage level of a firm or industry within a certain range without causing any adverse effects on the demand for labor and whenever employers can reduce the wage level without any adverse effects on the supply of labor. More precisely, the upper limit is the point at which the wage (and amount of labor employed) would be set if all the monopoly advantage were on the side of the union and, similarly, the lower limit is the wage that would be set if all the monopoly advantage were on the side of the employer. In a bilateral monopoly situation, the wage and amount of labor hired would usually fall somewhere between these upper and lower limits. Note, however, that above the "no-reaction" range, there is virtually no labor demanded at all and that below it, hardly any supplied. If the top and bottom limits are very close to one another, the parties have little latitude for bargaining, but in many situations this is not the case and the resulting wage will depend on such vague considerations as the type of leaders involved, public pressures to reach agreement, and relative bargaining strengths. Each party can be said to enjoy a certain advantage by reason of its monopoly position, but each likewise suffers a certain disadvantage by reason of the other's monopoly power.²³

²³ For a formal treatment of these issues, see William Fellner, *Competition among the Few* (New York: Knopf, 1949), chap. 10. Lloyd Reynolds has used much the same approach in analyzing the wage level of the individual firm; see his chapter in Richard A. Lester and Joseph Shister (eds.), *Insights into Labor Issues* (New York: Macmillan, 1948), chap. 11.

This view of wage determination deserves serious consideration for at least three reasons:

1. Experience in many bargaining situations indicates that relative to wages for comparable work elsewhere, there is a considerable range within which wage levels can be adjusted up and down without any observable effects on employment, methods of production, amounts of labor supplied, etc., but that outside this range further adjustments cause serious repercussions.

2. By directing attention to the limits within which wage adjustments can be made, this view highlights one of the most critical elements in wage determination. Objective circumstances such as the cost levels of competing producers, the availability and substitutability of other factors of production, consumer resistance to higher prices, and actual and prospective profit margins may mean that there is a fairly well-defined ceiling to possible wage increases. If there are other job opportunities to which the workers can readily turn, conditions of labor supply may even mean that there is something like a specific floor below which wage levels cannot fall. But in either case, estimates by the parties of what the other will probably do, what their own constituents will insist upon, and how their customers, suppliers, and rivals may react will also affect judgments as to how far a change in wages can be allowed to go.

3. In explaining when a particular wage or wage change falls within a given range, this view leaves room for a wide variety of influences which lie outside the usual frame of reference of equilibrium analysis. As noted earlier, objectives and strategies in wage determination can vary from industry to industry and from period to period, so even at the loss of a certain precision and clarity, theory must allow for this diversity of behavior. The major weakness of the competitive hypothesis, it will be recalled, is the extremely simple framework it employs for analyzing wage relationships. Formulations built around the notion of bilateral monopoly, on the other hand, set the stage for a more meaningful kind of analysis.

Most of the work in the latter direction has been kept within the severe limitations of partial-equilibrium theory and cannot be said to have added significantly to our understanding of wage principles.²⁴ Some noteworthy attempts have been made, however, to go beyond the usual bounds of theory and in some cases they have already yielded important insights. One such, which has received a great deal of attention, introduces "political" as well as "economic" influences into the explanation

²⁴ The most ambitious attempt to apply competitive and monopoly theory to wage issues is contained in Joan Robinson, *The Economics of Imperfect Competition* (New York: St. Martin's, 1936), book VII; perhaps the most important contribution of this book to wage theory is its treatment of monopsony and minimum-wage problems.

of wage relationships.²⁵ Another approach, which Taylor develops further in Chapter 4, treats wage determination as but one element in a broad bargaining process in which two or more organized groups, with quite different goals and subject to quite different pressures, explore the costs and benefits of reaching or failing to reach agreement.²⁶

Some writers have even tried to apply the principles of game theory to wage-setting problems, but it is too early to say whether this particular approach will prove of any real value.²⁷ All of these formulations have two elements in common: They involve a sharp departure from the purely competitive model, and they go outside the major assumptions usually employed in noncompetitive analysis. Since work along these lines gives promise of some success, the essays in this volume point in this same general direction.

GENERAL-EQUILIBRIUM THEORY

To the nineteenth century economist, the wage question was largely one of analyzing the real share of the nation's product going to labor. In one sense, this entailed a quite different approach to the study of wages from that involved in partial-equilibrium analysis, since it meant that labor was treated as a single homogeneous factor, differences among workers in particular areas, industries, and skill categories being disregarded. Attention was focused on the nation's total output rather than on outputs of individual firms or industries and on the real income position of the laboring class as a whole over long periods of time.²⁸

In a more fundamental sense, however, the approach in both partial- and general-equilibrium analysis was the same. National demand for labor was simply viewed as the sum of the offers made by all the firms in the country; national labor supply as the sum of the offers of all the workers at different wage levels—all expressed in real terms. If the real-wage level was reduced, other things being equal, more labor would be hired. The intersection of the two schedules gave both the national wage

²⁵ Arthur M. Ross, *Trade Union Wage Policy* (Berkeley, Calif.: University of California Press, 1948); see also chapter 7, by Ross, in this volume.

²⁶ The work along these lines has been well summarized in Neil W. Chamberlain, *Collective Bargaining* (New York: McGraw-Hill, 1951), chaps. 10-12.

²⁷ Two recent examples which contain a few elements of game theory are Melvin W. Reder, "The Theory of Union Wage Policy," *The Review of Economics and Statistics*, vol. 34 (February, 1952), pp. 34-45, and Martin Shubik, "A Business Cycle Model with Organized Labor Considered," *Econometrica*, vol. 20 (April, 1952), pp. 284-294.

²⁸ Sidney Weintraub has suggested to me that classical theory was only concerned with the absolute real share going to labor, not its relative share.

level and the total volume of employment, the product of wage times employment giving labor's total income for the period in question. The same reasoning was followed to explain the price and income paid to the other factors of production, of which the most important was payment for the use of capital.

This view of the relationships governing real wages in the country considered as a single market is wholly analogous to the approach taken by classical economists to the study of wages in individual submarkets or industries. The concepts that individual buyers and sellers are maximizing a definable magnitude, such as net profits, that certain conditions such as consumer tastes and the state of technology remain unchanged, and that a variation on the side of either demand or supply will set in motion certain equilibrating adjustments—these concepts underlie the reasoning in both cases. As in partial-equilibrium analysis, the system as a whole is viewed as tending toward a position in which labor everywhere is employed in such a way that value of added output equals added cost. Employers and workers in the aggregate behave just as they do in individual markets; the same analysis governing their choices among alternatives, the determinants of wages, and the effects following wage changes holds true for both.

Pure Competition or Pure Monopoly?

In line with this view, one of the crucial questions is whether the buying and selling of labor are done typically under conditions approaching pure competition or pure monopoly. If the former, the real-wage level and the total amount of labor employed can be said to be the result of countless transactions entered into by individuals, no one of whom can affect the wage prevailing in a given market. Every employer will continue to hire additional workers at the prevailing wage until the value of any one worker's contribution to the firm's output falls below the added or marginal cost involved in hiring him. Accordingly, workers everywhere will receive a wage equal to the value of their marginal products. Moreover, involuntary unemployment will be no more than a limited or transitory phenomenon, since wages will automatically fall until all those seeking work find jobs. Just as in any one submarket, labor and capital will continue to shift throughout the country until net returns derived from utilizing small increments of each factor are made everywhere the same.

If labor is bought and sold typically under conditions approaching pure monopoly, however, the real-wage level does not adjust itself automatically in such a way as to bring about full employment, nor is labor allocated everywhere in such a way that workers receive wages equal to the

value of their marginal physical products.²⁹ If employers generally possess a monopoly advantage in their dealings with employees, both the national wage level and the level of employment will tend to be less for a given number of workers than would be the case under pure competition, since employers will find it to their interest to restrict employment below what it would otherwise be. If the monopoly advantage, through unionism, lies on the workers' side, the real-wage level for those who remain employed will tend to be higher than under purely competitive conditions; on the other hand, employment of labor generally will tend to be less since the labor organizations will find it to their advantage to restrict the amounts of labor offered in order to keep the wage for employed workers above the level it would otherwise be. It follows that neither full employment nor optimum allocation of labor will be realized if the buying and selling of labor are carried on under noncompetitive conditions.

Extended evaluation of this approach to the study of the national wage level, and of labor's share in the national product, is unnecessary, since it is subject to many of the same criticisms already noted in connection with partial-equilibrium analysis. The notion of an average wage level for all labor throughout the economy is so all-inclusive as to be devoid of much meaning. The competitive hypothesis makes it possible to speak of a normal or equilibrium wage level in some highly abstract sense, but if the noncompetitive hypothesis is used (and realism seems to require it), the notion of equilibrium becomes considerably less precise. The principal value of this formulation is realized when it is applied to labor's long-term real-wage position in different industries, regions, or countries. Clearly, the relatively high real-wage level in a country like the United States is tied, in a general way, to the value of labor's marginal product in this country. Moreover, broadly speaking, the shares of the national income going to labor and capital in a particular region or country reflect the relative abundance or scarcity of these two factors of production.³⁰

²⁹ Wages should still equal marginal-revenue products, however—the difference being that, under monopoly, changes in outputs of individual firms affect product prices, while under monopsony, changes in amount of labor hired by individual firms affect wages.

³⁰ The fact that labor's *relative* share in the national income has apparently remained stable for a long period of time has intrigued many economists, but a satisfactory explanation has yet to be developed. Starting from the assumption of imperfect competition, Kalecki makes the interesting suggestion that the stability in labor's share in England and the United States between 1880 and 1935 can be attributed to a decline in raw material prices which just about offset an increase in the degree of monopoly among business firms; the latter part of the proposition is extremely dubious. See Michael Kalecki, *Essays in the Theory of Economic Fluctuations* (New York: Rinehart, 1939), chap. 1. The effect of unions on the distribution of national income is the subject of Chapter 10, by Clark Kerr.

Perhaps the main lesson to be learned from classical wage theory is that, at any given moment of time, a rise in the money-wage level is unlikely to entail a rise in the real-wage level, and if it does, the increase in the money- and real-wage level is even less likely to entail an increase in labor's total real income. Over a period of time, however, classical doctrine teaches us that the entire marginal-product schedule of labor may shift upward as mechanical methods of production or other improvements in efficiency are introduced on a widening scale; under these conditions, a rise in the real-wage level, in labor's total real income, and, conceivably, in labor's share in total output becomes possible. When stated in these broad terms, which are almost in the category of homely truths, few economists would take exception to the classical formulation, and in this sense it still appears to afford the best frame of reference for getting at long-term influences bearing on the nation's real-wage level.

MODERN INCOME THEORY

In modern income theory, in contrast to the classical system, the question of the level of aggregate demand comes to the forefront of attention. According to this view, even a country with a well-trained work force, an elaborate money and credit structure, a large stock of capital equipment, and a highly competitive business system may suffer from a low real-wage level and considerable unemployment. This anomalous result (the paradox of poverty in the midst of plenty) follows from the fact that there is no assurance that the principal spending propensities in the private sector—the propensity to consume, the propensity to lend, and the propensity to borrow (or invest)—will yield a total volume of expenditure which will fully utilize the country's physical and human resources. If these propensities—or, more strictly, the relationships among them—are such as to discourage spending, it follows that aggregate output, employment, and income will settle at a point well below the full-employment potential and that the real-wage, as well as the money-wage, bill will be reduced. If, on the other hand, the spending propensities are favorable, all the advantages flowing from a full utilization of the nation's resources will be realized and the real-wage bill will be correspondingly greater.³¹ Once full employment is attained, moreover, the important considerations become the same as those stressed by the classicists in explaining long-run changes in real wages.

³¹ A concise statement of wage theory as it relates to modern income analysis is contained in James Tobin's essay in Seymour H. Harris (ed.), *The New Economics* (New York: Knopf, 1947), chap. XL. Reference is made to the wage bill rather than the wage level in order to avoid making any assumption as to whether production is occurring under conditions of decreasing returns.

Bearing of Income Theory on Three Main Questions

The difference between the modern and classical approach to national-wage-level questions is most clearly seen in their implications for policy. According to the classicists, any general surplus in the supply of labor relative to demand could be (and, under conditions of pure competition, would be) corrected simply through adjustments in the money- and hence the real-wage level; any adverse effect that an all-around decrease in wages might have on aggregate demand was not taken into account. According to modern income theory, a reduction in money wages may lead to a corresponding reduction in prices and thus produce no change in the real-wage level at all. What is more significant, even if real wages were to fall, there is no assurance that the effects, on balance, would lead to a rise in aggregate demand and hence in employment. In the first place, the decline in money wages and the lesser decline in prices may involve some redistribution of income away from wage earners (and, to a lesser extent, from profit recipients) toward fixed-income receivers; this in turn will involve a shift in income toward groups with a relatively high propensity to save. In the second place, a cut in real wages will mean a lowering of costs, which may stimulate investment, particularly since the decline in wages and prices would reduce the amount of cash needed for business transactions, thus leading to a lowering of interest rates. When, in addition to these conflicting influences, allowance is made for changes in expectations of consumers, borrowers, and lenders, the net effects of wage cuts on aggregate demand become rather hard to predict. As Reynolds suggests in Chapter 9, however, the prevailing view among economists is that a policy of wage reductions would probably intensify rather than alleviate any condition of general unemployment.

Enough has been said to indicate the new perspective on the effects of general wage changes brought about by modern income analysis. What light does this analysis throw on the determinants of the national wage level? As in the case of effects, the question of determinants depends on the interactions between the spending propensities and, through them, on the level of national income. Consider, for example, the effects of a general rise in the profitability of new investment on the money-wage level. If the money supply remains unchanged or the liquidity-preference schedule increases or the proportion of additional income consumed falls, the net effects may be nil; if the opposite conditions are assumed, the money-wage level (and the general price level) may rise.

But this is only half the story, for the results will differ in accordance with the assumptions made about the behavior of output and returns, and here real factors intrude. If supplies of labor and of the other factors are highly elastic (as they tend to be in periods of general unemployment),

an increase in returns on new investment may well result in a substantial rise in the real-wage level but little or no rise in the money-wage level. If supply conditions for the various factors are highly inelastic (as in periods of full employment), just the reverse result is likely to obtain. Income theory, in short, yields few definite conclusions as to the determinants of the general wage level, whether in real or money terms. All that can be said at this juncture is that income theory has helped in formulating issues, in asking important questions, and in suggesting fruitful lines for further inquiry.

While modern income theory has put analysis of the national wage level in a wholly new light, it suffers from certain limitations or weaknesses which deserve mention.³²

1. The theory is couched in broad aggregative terms. The consumption function, the marginal efficiency of capital, and the liquidity-preference schedule (to use Keynesian jargon) embody relationships of a most general character, and in applying these concepts it is easy to overlook important differences among consuming and investing groups. The analysis has been especially criticized for losing sight of the importance of cost-price relationships, differences in supply elasticities among industries, and variations in the sales-profit positions of different firms—considerations which are handled with considerable facility in partial-equilibrium analysis. This criticism seems justified, although it is more applicable to the way in which modern income theory has sometimes been applied than to the validity of the theory itself.

2. Income theory, strictly speaking, deals only in static, short-run relationships. In this respect, the theory is subject to the same weaknesses as the earlier formulations based on partial-equilibrium analysis; in fact, by concentrating on short-run conditions, one could argue, it is even more open to censure on this score. For many economists it is hard to attach much meaning to the notion that if a change occurs in one of the key determinants of national income, a series of adjustments will follow which will restore the balance of the system again. On the other hand, if the determinants are assumed to vary over time and if the relationships between the different spending categories are treated as cumulative within limits rather than self-limiting, the analysis is greatly complicated. Once again, theory seems to be faced with almost a Hobson's choice: to be either simple and meaningless or extremely complex and relevant.

3. Income theory has not yet successfully bridged the gap between money values and real values. As long as the analysis is confined to one basis or the other, this problem does not arise, but when the two sets of

³² These issues, particularly the second and third, are discussed in Lawrence R. Klein's essay in Kenneth K. Kurihara (ed.), *Post Keynesian Economics* (New Brunswick, N.J.: Rutgers University Press, 1954), chap. 11.

values are combined within a single system of relationships, serious difficulties occur. This was clearly evident in the comments already made concerning the determinants of the national wage level, when the leap was made from money terms to real terms.

4. As the foregoing suggests, the theory has been no more successful than any of its predecessors in dealing with the supply of labor. In order to close the system, some kind of supply curve of labor has to be introduced, but lacking a better means for handling the matter, a supply curve of labor has simply been assumed. In other words, the forces determining the national wage level are treated as lying largely outside the system of income relationships. A first order of business for those working in the wage field is to try to fill this void.³³

In the perspective of subsequent developments, the greatest contribution of modern income analysis has come primarily as a by-product, for while the theory is essentially static in conception, it has given an enormous impetus to the study of dynamic relationships. The analysis of wages has as yet received little benefit from this new development in economics, but it can be confidently predicted that it will do so in the future.

CONCLUSIONS

In this brief review of wage theory, emphasis has been put on those features of deductive analysis which have added most to our understanding of contemporary wage issues. Broadly speaking, partial- and general-equilibrium theory have been found to provide an unsatisfactory framework for analyzing wage relationships in terms of choices, determinants, and effects—the three questions of major interest today. On the other hand, the direction in which recent work in these two areas has been moving shows considerable promise. In the area of partial-equilibrium analysis, theorists are putting less emphasis on the rather simple, almost mechanical view of wage determination based on the hypothesis of pure competition and developed in its most elaborate form in the theory of marginal productivity. Increasing attention is being given to formulations based on the noncompetitive hypothesis, such as bilateral monopoly, and on the interplay between competitive and noncompetitive influences. Thus, while contemporary theorists (quite properly, it seems) still use the competitive or marginal-productivity hypothesis to explain wage

³³ Concerning this element in his empirical model of the Keynesian system, Klein writes: "A labor supply equation is not explicitly introduced. At this stage, the model assumes the labor force to be an exogenous variable, but obviously this approximation eventually will have to be dropped." See Lawrence R. Klein's essay in Kurihara, *op. cit.*, p. 317.

movements of a broad, long-term nature, they tend to approach the study of structural wage differences and short-term wage movements in terms of the noncompetitive hypothesis.

This accords with the view that influences other than the compulsions of competitive markets play a large role in shaping wage relationships. An understanding of these other influences calls particularly for an analysis of salient aspects of industrial relations: how managements and unions approach their wage bargains, how the prospect of nonagreement affects their dealings, how various intra- and interplant wage structures emerge, and the like. The contributors to this volume believe that wage theory should be related not only to the central body of economic thought but to the experience and findings in the field of industrial relations as well. The chapters which follow explore the different facets of this viewpoint in some detail.

Our critique of general-equilibrium theory has yielded somewhat similar findings. Except for explanations of long-term movements, modern theorists no longer use the marginal-productivity framework in analyzing the general wage level. The controlling forces emphasized today are those associated with modern income analysis. This analysis, however, yields rather fuzzy results; it is impossible to speak with much definiteness about the relationships between changes in the general wage level and the other elements of national income determination. Again, the way is open for further work which will help fill the gap that modern theory has exposed.

The principal conclusion to which this critique has come is that in both branches of deductive analysis, theorists are now saying that wage determination cannot be reduced to a single rule of behavior, that in so far as economic influences as such are concerned, there is an element of uncertainty or even indeterminateness in wage setting, which earlier economists were inclined to minimize. This accords with the main line of development in empirical work, suggesting that it is in this direction that deductive and inductive wage analysis may yet be able to reach common ground.

2. *Wage Theory: A Management View*

Management *pays* wages; scholars *think* about wages. This is not to say that a corporate executive confronted with a wage problem does no thinking. He thinks, one may be sure, but it is not the scholar's kind of thinking. It is the thinking, especially in collective bargaining, of a man of action confronted with a present risk and a deadline for decision.

In this chapter direct testimony is given on the considerations and motives which guide management to decisions on wages. While the assignment is a most difficult one, the author has reached certain conclusions and states them here at the outset in the hope that his more patient readers will follow the argument.

General Considerations

The factors which move the more influential segments of industrial management to a wage decision are: (1) the compulsion to maintain production, (2) the need to maintain a feasible price, and (3) the *sine qua non*—profit.

In the twentieth century status begins to compete with the wage for workers' concern and with the profit for management's concern. The worker's preoccupation with status is old; his ability to attain his desire through organization is new. Management's preoccupation with status in one aspect is no more than the ancient concomitant of power, but in an aspect of new significance it is a consequence of heavy technology in a free competitive economy.

Production, price, profit—and the greatest of these is production. This is the theme, adopted without intended political or ethical overtones, the literary expression of an hypothesis for wage analysis. There are many complexities of the contemporary industrial process and wide economic margins in contemporary technology which may not have had adequate attention in classical economics, the "gloomy science," for the very good reason indeed that these complexities and margins are now becoming more apparent.

If status for the enterprise, the goal of a competitive compulsion to maintain producer-customer relationships, is a paramount consideration which forces production first and price and profit next, then the sharp pencil of classical wage theory is blunted.¹

"Economic man" plays a major role in traditional wage theory, but he probably has more alternative choices and his firm more administrative maneuverability than the postulates of the classical economists permit—more than seem to be explained by traditional wage theory. Perhaps wage theory itself is in for some collective bargaining.²

This discussion attempts to disclose a management view of wage determination. We are inclined to speak of management as if it were a monolith, a structure as homogeneous as a marble column, as concrete and identifiable as the Washington Monument. Such is not the case.

There are 4,182,000 separate and individual business enterprises in the United States.³ In each of these enterprises—whether a filling station in an Arizona desert, a neighborhood movie, a GI trucker with a single tractor and trailer operating on a government loan, a bar, beauty shop, barbecue, wrecker, scrap dealer, exterminator, house builder, hosiery manufacturer, hotel keeper, or towering industrial giant, whatever the enterprise—management is present.

Obviously the author does not undertake to speak for the whole of the sprawling proliferation of managerial skills which guide American business. Over 330,000 new businesses started in the United States in 1954. The annual rate of additions—new business starts—in that year was 8 per cent and the annual rate of business terminations (not liquidations, but terminations for all causes) was 15 per cent.⁴ Management played an important role in the establishment of both rates; but it is not for this total of all management that the author claims competence to speak.

For a number of years the Board of Governors of the Federal Reserve System has maintained a statistical series with respect to 200 large manufacturing corporations. The series does not necessarily include the 200 largest corporations, although many in the series are the largest of their type, but rather it is designed to give a cross section representative of so-called big business. The total number of employees of these corpora-

¹ "Compulsion" is a strong word. A reader who quit the chapter at this point might erroneously assume that management will pay any wage of whatsoever amount rather than suffer an interruption of production. This would be a superficial and misleading deduction, as those who follow the chapter to its end will see.

² See Herbert A. Simon, "A Behavioral Model of Rational Choice," *The Quarterly Journal of Economics*, vol. 69 (February, 1955), not for a discussion of the precise question of wage determination, but for delineation of factors in the choices of decision making.

³ *Survey of Current Business* (U.S. Department of Commerce, April, 1955), p. 15.

⁴ *Ibid.*

tions in 1954 was approximately 3,500,000—less than 22 per cent of the 16,500,000 employees in all manufacturing industries and only 5 per cent of the civilian labor force in the United States, 66,000,000 people.⁵ The sales of the 200 corporations in 1954 totaled \$57.5 billion⁶—only 20 per cent of the total sales of all manufacturing industries and only 10 per cent of the total sales of all business enterprise.⁷

These statistics are pertinent for the purpose of defining the scope of industry within which the author has had some experience either by participation or by observation. Whatever facts, figures, or judgments are expressed in this chapter derive from that experience.

Background of Business Managers

Even within the area of industry roughly represented by the 200 large corporations management is not monolithic nor do the relatively few people who make up management in that area possess homogeneous or identical characteristics. This is true even though management itself selects its successors or they are selected by quite small control groups.⁸

There are wide divergences among the skills from which management is drawn. Now a sales executive holds the top position, later a technologist, a production engineer, lawyer, or accountant. A survey of the biographies of the presidents of the 200 large corporations shows backgrounds, where specific background was available, according to the table on page 35. Thus the diverse nature of the education and experience of top management suggests a wide range of individual abilities and attitudes.

Management of large corporations is concentrated, however, in a relatively small group. For the 200 corporations there are 2,561 vice-presidents—heads of line and staff departments who make final major decisions. If one should take even the 500 largest corporations and apply the same formula, i.e., a head man with 13.8 top line and staff associates for each company, we are talking about a group of only 6,900 people.⁹

⁵ Compiled from *The Fortune Directory of the 500 Largest U.S. Industrial Corporations*, Supplement to *Fortune* (July, 1955); *Moody's Industrial Manual* (1955); and *Monthly Labor Review* (U.S. Bureau of Labor Statistics, August, 1955), pp. 946-947.

⁶ *Federal Reserve Bulletin* (Board of Governors of the Federal Reserve System, June, 1955), p. 685.

⁷ Total sales of "200 Large Manufacturing Corporations" divided by total sales of all manufacturing concerns (\$288 billion) and total sales of "200 Large Manufacturing Corporations" divided by total sales of all business concerns (\$568 billion). Data taken from *Statistical Abstract of the United States* (U.S. Department of Commerce, 1955), table 595, p. 500.

⁸ A. A. Berle, Jr., and G. Means, *The Modern Corporation and Private Property* (New York: Macmillan, 1940), chap. V.

⁹ *Poor's Register of Directors and Executives* (1955); *Moody's Industrial Manual* (1955); *The Fortune Directory* (July, 1955).

A factor which produces diversity of characteristics among the managers of large corporations is inherent in the methods of selection. These methods depend upon numerous vicissitudes. If corporate borrowings are heavy, investment bankers may influence the selection of management; if the enterprise rests upon inventions and patents and has grown rapidly—expanding from profits—technologists may be the dominant in-

TABLE 1. BACKGROUND OF BUSINESS EXECUTIVES

<i>Background*</i>	<i>Number of executives</i>
Sales .	26
Lawyers	19
Engineers	18
Finance ..	11
Chemists.	8
Mechanical engineers	6
Accountants ..	5
Business administration	5
Bankers .. .	4
Chemical engineers	4
Civil engineers .	3
Electrical engineers	3
Metallurgical engineers	3
Research chemists .	2
Agricultural chemical engineer	1
Geologist	1
Geophysicist	1
Mining engineer	1
Textile engineer .	1

* Sources: *Poor's Register of Directors and Executives* (1955), *Moody's Industrial Manual* (1955); *Who's Who in America* (Chicago: A. N. Marquis, 1954-1955), vol. 28; *Who's Who in Commerce and Industry*, Ninth International Ed. (Chicago: A. N. Marquis, 1955); *Who's Who in the East* (Chicago: A. N. Marquis, 1953); *Who's Who in Engineering* (New York: Lewis Historical, 1954); *Chemical Who's Who* (New York: Lewis Historical, 1951); *Biography Index, 1946-August, 1955* (New York: H. W. Wilson), *Current Biography, 1949-1954* (New York: H. W. Wilson).

For a current and more penetrating inquiry into the backgrounds of big business executives see M. Newcomer, *The Big Business Executive* (New York: Columbia University Press, 1955); W. L. Warner, *Big Business Leaders in America* (New York: Harper, 1955).

fluence in selection of management. If large stockholdings have resulted from inheritance, family lawyers or trusted friends may guide the selections. Parvenus in the stock market may pyramid their acquisitions to control. The trustees of the new pension trusts, growing at a tremendous pace, will shortly find their investments in common stocks accompanied with an opportunity for influencing selection of managements.

Thus it is obvious that there is no homogeneity of attitudes, background, or experience in those clusters of ownership which have the largest voice in the selection of management. Yesterday, today, and

tomorrow are represented in controlling groups. No one would be so bold as to speak for the whole of management, even for the small group of management of large corporations, or for the whole of those who immediately underlie management with their power to prolong, terminate, or initiate its tenures, and so to influence its decisions.

Another factor tending to diversity is that managements function quite differently, even within the 200 corporations. Some are quite autocratic—"I had the last word with the boss today; I said "Yes, Sir." " Other managements use staff and committee procedures so that decisions emerge through the conference method almost imperceptibly. Others divide areas of top responsibilities so that titles mean less than assignment of functions, and executive action ensues from a high degree of comity among functionaries. Therefore, in the search for a management view of wage determination one could easily get lost, even in a single large corporation, in the labyrinth which leads to the bull, single- or hydra-headed, on whose shoulders rests the corporate mind.

The Dynamics of the Wage Concept

Just as the concept of management cannot be taken in a monolithic sense, neither can the term "wage." The wage is a far less concrete concept than would be convenient for our analysis. To management the wage is a cost; to the worker it is the means of subsistence, an index to his standard of living. Management's first reaction to any cost is to reduce it; the worker's first reaction to subsistence—standard of living—is to increase it. Naturally, therefore, Goldfinger and Kassalow speak of "bargaining" as a significant factor in wage determination, claim a "fundamentally pragmatic" approach to any wage question, and offer, unabashed, "stamina" at the bargaining table as a factor in wage determination (see Chapter 3).

Management would be more inclined to agree with pragmatism in wage setting than would Adam Smith, David Ricardo, or Karl Marx, among whom there was substantial agreement that an inexorable economic scheme sets the wage quite without regard to the maneuvers of employer or employees.¹⁰ Dunlop, in Chapter 5, and Reynolds, in Chapter 9, likewise tend to reduce management and labor to the status of automatic writers on the economic Ouija board. And such may be the case in the outer reaches of pure economic analysis, where theory seeks a total explanation for all particulars and so must obscure them in a comprehensive economic scheme.

But management and labor deal in particulars. And management is as convinced as labor that collective bargaining, which generally obtains

¹⁰ Robert Heilbroner, *The Worldly Philosophers* (New York: Simon and Schuster, 1953), p. 149.

among the 200 large corporations, has been and is a substantial factor in the settling of particular wages. Certainly management understands Taylor's delineation in Chapter 4 of some of the consequences of non-agreement on wages between management and labor.

Indeed, it is in this real world of collective bargaining that the wage has become a fragmented concept. Writers on wages, those in this volume not the least, are careful to define the term. Is it straight-time hourly earnings, without premiums for overtime, or with such premiums, with or without shift differentials; with premiums for Saturday or Sunday as such, or for the sixth or seventh days, with or without call-in pay; with or without the cost of special clothes or equipment furnished at the employer's cost? Does it include or exclude the cost of pay for no work—holidays, vacations, and penalties for calling in the wrong man on the seniority list? Does it include or exclude incentive payments and does the case change if these payments are a high percentage or a low percentage of base rates or are computed on only a part rather than the whole of the base rate or become an average based upon past earnings while standards on new operations are in dispute—sometimes over a long period? Does it include payments to employees on jury duty; payments for time off to vote; payments to full-time grievance men; payments for travel time, rest periods, start-up before and clean-up after work? Does it cover payments for insurance against accident, illness, maternity, or death; payments for pensions and for the cost of increased pensions for former employees long since retired?

The list could be prolonged, but the point is made. So-called fringes—payments other than those which can be directly related to units of production-time or units of production-quantity—are of substantial consequence. They vary from 5 per cent to 55 per cent of payroll. The average payment for a group of 940 companies was 19.2 per cent of payroll in 1953. This amounted to an average of 34.6 cents per payroll hour.¹¹ The Chamber of Commerce study, *Fringe Benefits, 1953*, concludes: "When a worker is hired today, or a new wage contract is agreed upon, the wage rates established no longer measure the cost of hiring labor, and the number of hours actually worked no longer measures the number of hours for which the employer must pay." For 130 identical companies fringe payments as a percentage of payroll increased from 15.2 per cent in 1947 to 20.2 per cent in 1953¹²—a rate of increase in ratio of fringe to nonfringe payments of 33½ per cent. And the statistics do not reflect the impact of the new supplementary payments for unemployment: guaranteed annual wages.

Wage analysis, if it excludes so large an absolute portion of payments

¹¹ *Fringe Benefits, 1953*, (Chamber of Commerce of the United States, 1954), p. 6.

¹² *Ibid.*, p. 24.

to labor (the fringes), and a portion growing at so rapid a rate, needs scrutiny. It is a temptation to wonder whether the uncompensated "surplus value" of labor, discovered by Karl Marx in his meanderings about the catacombs of a now defunct form of capitalism, would be found by his counterpart today. In any case the statistics on fringes are just now in process of systematic assembly, and others must investigate the question of whether there can be adequate wage analysis if only non-fringe payments are considered.

Status

However, the fringe question is directly related to the proposition that status is beginning to compete with the wage as a factor in workers' claims upon the enterprise. The fringes, at least the more important ones, involve a tacit, if not an express, agreement among workers that some shall have larger, or in any case different, claims upon the enterprise than others, at least in any given period of time. This conclusion is pronounced in the case of the guaranteed annual wage. (The author is aware of the various forms of unemployment compensation which are loosely covered under that term and of the desire of proponents of various plans to avoid its use. But for the purposes of this discussion the term is convenient shorthand.) Payments made to discharge such a guarantee inescapably benefit younger workers, because seniority leaves the older workers in possession of the available jobs. Since seniority normally benefits the senior worker, it is all the more remarkable that in 1955 a significantly large number of workers, probably a million, made contracts entailing an effectual wage relinquishment by older men and women in order that younger men and women may enforce nonwage claims against the enterprise.¹³ And it is equally significant that important segments of management have agreed to payments only vaguely related either to current or future production.

The worker's growing concern with status, i.e., his tendency to assert through his union claims not immediately related to wages, portends a kind of demand for citizenship in the corporation as a quasi-political organism. Management's growing concern with status, to which we now come in the discussion, is a concomitant, but not necessarily related, development. Both movements seem to minimize in some degree the wage proper as a factor in enterprise.¹⁴

¹³ *Management Record*, vol. 17, no. 10 (National Industrial Conference Board, October, 1955), p. 406; and unpublished data available in the files of the National Industrial Conference Board.

¹⁴ A. A. Berle, Jr., *The 20th Century Capitalist Revolution* (New York: Harcourt, Brace, 1954), especially chap. III. It is a temptation to look for parallels between the modern industrial societies built around large corporations and the network of recip-

When we say that management seeks status for the enterprise, we mean imply the avoidance of *inferior* status, the avoidance of invidious comparison with competing enterprise. And who might make the feared invidious comparison? The customer—none other. The object of all industry and commerce is the sale. What else?

There are many kinds of customers. The buyer of a lollipop at a county fair is a customer but not a very important one, for the reason that the hawker will not be there the next day. He has little if any investment and a minimum concern about a repeat order. But the buyer of coal for a power plant is in a very different case. Both the seller and buyer have large investments, a long-range future, and interdependent relationships.

Interdependence of Sellers and Buyers

Let us try to generalize. A man on Mars looking at our Western world twentieth century economy, viewing the whole scheme of our industrial process, would perceive networks of production operations which are in essence completely integrated despite entirely separate ownerships. To view the dividing line of ownership would be as irrelevant as a county boundary is to an airplane pilot. For example, he would see trainloads rawling over thousands of miles of railroad networks carrying chemicals o synthetic fiber plants, steel from Pittsburgh to Detroit automobile manufacture, chlorine from one state to antifreeze manufacture in another, to paper manufacture in yet another, glass from where it is made o automobiles and furniture where they are made, alkali from one place o soap production in another place, soda ash from a chemical plant to beer bottles and milk bottles in glass container plants, paint to refrigerator and stove manufacture, sulphuric acid to titanium pigments—the categories are endless.

Our man on Mars would observe the uniform spacing of these movements from supplier to user. He would perceive that there are relatively small storage facilities at either the supplier's or the user's plant. He would see that any suspension of regular flow from the supplier to the user would affect both. No alkali, no soap; no steel, no automobiles. He would see it just as simply and correctly as that. And if he were a totalitarian, he would conclude that a marvelous superintelligence had planned and executed such perfect coordination of production—never dreaming that, despite this interdependence of production processes, the ownerships are separate and independent, uncontrolled by any superauthority. To his totalitarian eye it would not appear that this smooth

ocal duties and rights, society-wide in nature, which characterized the organization of the manor in medieval times. But that is beyond the scope of this chapter.

integration results from the meeting in a free market place of buyers needing uninterrupted supply and sellers needing uninterrupted sales.

"We have 40 per cent of the requirements of X Company and all of the requirements of Y Company for next year," the sales executive reports happily to the board of directors. Whereupon appropriations are made for facilities to produce the requirements, and no one says a word about the wage. No lollipop transaction here. And a manager would ask for commitment to a mental institution on his own motion before suggesting to his board that he would have to wait until the next wage negotiation before accepting the business of X and Y.

It is not uncommon for suppliers to contract for five or ten years, even for longer, to provide the semifinished products upon which some other producer must depend for the manufacture of the product which will go to the ultimate consumer or user. But even in the absence of formal contract there are reciprocal commitments of almost equal dignity. For example, before a manufacturer of synthetic fabrics, essential in large quantities for automobile production, builds a plant, he must know where the chemicals will come from. Both he and the chemical producer make heavy investments on the assumption that one will take and the other supply tons of the chemicals—not once, but regularly over the years in which the investments must be amortized. Each operation is dependent upon the other and yet neither has any such forward assurance as to the cost of labor as he has with respect to raw material sources, fuel, power, and workability of processes. Nevertheless the commitments are made, legal or ethical (dependable supplier—loyal customer relationships), and the supplier will deal with the question of wages as best he can when the necessity arises.

He will deal with the wage question on the assumption that it is his obligation to keep his customer's plants going, that he must protect his status as a dependable supplier. And why? Because a supplier guilty of interrupting a customer's production will find the customer seeking dependable supply elsewhere. Thus the stage is set for the wage issue by factors antecedent to the issue and of such potency that compulsion to maintain production comes first when management faces the age-old question: What is the worth of the labore's hire?

Competition among the Few

It is the well-worn, but durable, concept of competition which is at work when sellers strive for the status of dependable supplier. But it is not the competition of the Oriental bazaar, where if one customer passes without a purchase, another soon comes within range of the hawker's blandishments. It is competition among few suppliers for the favor of

few customers. The technologies are heavy. Science, adaptation, and engineering have made the machines and the processes of huge dimensions, and the production, if uninterrupted, of comparable scale. A lost customer is not easily replaced, for there are but few of his kind; nor could there be many with the machine so big, costly, and productive.

It will be said that this analysis is valid for only certain industries, those which in effect are only feeders to pipelines leading to other industries. But how about the makers of shoes and ships and sealing wax? it will be asked. Does uninterrupted production come first with such as these when the wage issue arises? More often than not, the author believes, particularly among the 200 large corporations, and for fundamentally the same reasons.

Examine the following list of these 200 corporations (they are classified as to products and the number of corporations is given for each classification): food and kindred products (28), chemicals and allied products (26), petroleum refining (14), textile mill products (10), paper and allied products (15), miscellaneous nondurable goods (1), primary metals and products (39), machinery (27), building materials (12), automobiles and equipment (15), other transportation equipment (6), and miscellaneous durable goods (7).

The reader will readily see that among these categories a corporation which is not primarily a pipeline feeder with the compulsion to production noted above is probably the possessor of a brand name—more often than not the name of the corporation itself. Suffice it to mention a food, drug, or textile concern, a publishing house, or electrical appliance concern, or a watch or automobile manufacturer. Millions of buyers have committed themselves to a brand name—just as the manufacturer intended, else why such large appropriations for advertising? Just as the pipeline supplier cannot let his scarce big customer down, so also the possessor of a favorite brand name cannot let his millions of loyal adherents down. He is under constant compulsion to preserve his status—to avoid lapsing to inferior status. That those who would buy cannot because not enough is made—this is to lose status.

The year 1955 furnished a most dramatic illustration of this point. But the story begins in 1947, when Henry Ford II, just assuming the reins of the corporation which had risen and declined under his grandfather, declared in an interview, "Our first goal is to outsell Chevrolet in the low-priced field."¹⁵ That set the stage for the guaranteed annual wage in 1955. Neither Ford nor General Motors could afford to interrupt pro-

¹⁵ "Henry Ford II Speaks Out," *Atlantic Monthly* (December, 1947), p. 25. The interview was conducted by Tom Lilley, assistant director of research, Harvard Business School.

duction in their race for status. Walter Reuther might have chosen to demand something else, but whatever his demand the compulsion for production would have served as his first lieutenant in the contest.

Wage-Price Relationship

Production first, price and profit next, and in that order when a wage issue arises. So we come now to price.

Management abhors disturbance of equilibrium. The manager's nirvana would be stable costs, stable prices, loyal customers. He believes that his profits are reasonable and therefore that a change of any cost, the wage not the least, raises the specter of a price change. More cost, more price—this is managerial instinct. Seldom would a manager say to his board, "Our profits are unusually good, let us raise wages or pay more for our raw materials, fuel, or power, or increase the interest rate on our bond issue." If he should make such a suggestion, most boards would gently suggest the employment of a psychiatrist.

The assumption is that every cost, every increase in cost, must shift. And there is no place for it to shift but to price. Fundamentally the assumption is obviously correct. Business must recover its costs—all of them—plus a profit. No one supposes that business endures on losses. A wage increase therefore entails a *prima facie* price increase.

But the case is far from being that simple. True, a wage increase may induce additional worker productivity—hence lower costs—and be a negative pressure on price. But top management will tend to consider that the *status quo ante* was in equilibrium and to reason that an increase in the wage should be followed by a price increase. But there are other factors. Will customers pay a higher price? And if some will, how about others? And what about distortion of price-product relationships if prices are increased for those who will pay and not for those who will not pay?

A price increase entails more consequences than are immediately apparent. It is not only the obvious fact that the seller's price is the buyer's cost and that the seller must therefore think of whether the buyer can pass on an increase in his cost, but also other factors. The mechanics of pricing from the first producer to the ultimate seller to the final buyer are factors of substance—not mere form. Go into a roadside filling station of modest size—the majority are such—and ask to buy some part or accessory. Watch the attendant, between services at the pump, consult a well-thumbed book before he tells you the price. Prices get recorded in innumerable, widely distributed lists and catalogues. Every intermediate sale of some essential to the finished product is reflected in the final catalogue price. Such catalogues are expensive to print and distribute. They are essential to mass movement of goods in an economy of plenty in which trade is conducted by clerical routine—not in the carefully

plotted transactions of a David Harum. This is only one illustration. Price ensues from a complex of considerations, of which cost is but one.

Prices are the legs on which the business centipede travels. If one of the legs is lengthened, the body is out of balance and there is a period of halting procedures until multiple, often costly, adjustments occur. Management thinks twice before changing a price.

We can now begin to construct a scale of managerial resistance to a wage increase. The possibility of interruption of production marks the low point of resistance. The possibility that the price cannot be increased to cover the increased wage cost marks a higher point of resistance—substantially higher but not conclusive.

Profit and Wages

And now to profits. We must remind ourselves that we are talking about a profit-and-loss system in which the enterprising corporation has accumulated capital; buys land, buildings, and machines; employs people; makes something which people need or will buy—shoes, nails, soap, a Rolls-Royce—and then sells the product for enough above cost (a profit) so that the process can be repeated. The loss is the unpardonable sin of capitalism.

Hence one may say with certainty, and in this regard may speak for all business, including the 200 large corporations and the filling station, that management does not make payments for labor in an amount which will preclude a profit—not, at least, for any sustained period of time. That simple fundamental will be the rock on which the manager intends to stand.

A parenthetical word about profits: there is a popular concept that nothing is wrong with the profit-and-loss system but the profit. The idea that there is a melon to be cut for society from corporate profits is easily dispelled. There are only three sources for such a melon: (1) what corporate managers receive, (2) what stockholders receive, and (3) what corporations retain for "plow-back." Now, if we had totaled for the year 1952 all the annual incomes in the United States above \$10,000 (a figure roughly marking the line between the lower ranks of management and the higher ranks of labor) and had divided that total figure among all the people receiving less than \$10,000, and if all dividends paid by business to stockholders in that year had been distributed instead among all people who receive wages or other income, and if the profits which business retained in that year had been distributed among all people who received wages or other income—then a man who earned \$3,000 in that year would have received an additional \$357;¹⁶ and after that minor,

¹⁶ *Statistics of Income for 1952: Preliminary Report*, Internal Revenue Service Document 159 (Feb. 2, 1955); and *Facts and Figures on Government Finance, 1954-1955*

one-time bonanza, the deluge! Management without incentives would cease to work; capital without a wage (dividends) would flee so unrewarding a community; and corporate enterprise deprived of the ability to grow from within would dry on the vine.

This delusion that there is some surplus somewhere in the profit-and-loss system is of ancient origin. In the sixteenth century, Heming thundered about the violator of "just price":¹⁷

Cloake the same by what title you liste, your synne is excedyng greate. . . . He which hurteth but one man is in a damnable case; what shall bee thought of thee, what bryngest whole householdes to their graves . . . ? Thou maiest finde shifte to avoid the [punishment] of men, but assuredly thou shalte not escape the judgements of God.

And the late Phil Murray sounded not unlike a worthy successor of the sixteenth century theologians:¹⁸

Government statistics show that the rich are expanding their control over our national wealth and savings while millions of families live at sub-marginal levels. . . . I believe firmly in free enterprise, but I also am firmly convinced that the business community has no license to act without responsibility for the public welfare.

The profit, heart of capitalism, is curiously unpopular with many people who, except for the profit, loudly proclaim the virtues of the system. But popular or unpopular, there must be a profit after wages and all other costs. Why then does this author suggest that the compulsions to maintain price or profit are subject to modification because of the sometimes stronger compulsion to maintain production? Because of the margin in heavy technology. Management does not know how much margin. But the conviction is strong that a vanishing profit can be re-created by adjustments in the technology. This conviction is strong even where the ratio of wages (and salaries) to product sales value is high.

(New York: The Tax Foundation).

It is worthy of note that this simple calculation was not possible to any economist from Adam Smith to Thorstein Veblen, who complained so bitterly of the excessive rewards of the "lieutenants of absentee ownership." It was Veblen's pupil, Wesley Clair Mitchell, who opened the door to the statistical methods by which we now have more precise knowledge of capitalism.

¹⁷ Nicholas Heming, *The Lawful Use of Riches*, quoted in R. H. Tawney, *Religion and the Rise of Capitalism* (New York: New American Library, 1953), p. 133.

¹⁸ Philip Murray, "What Union Labor Wants," *New Republic* (Mar. 27, 1950), p. 16.

This ratio varies from 5.2 per cent to 67.7 per cent.¹⁹ (But for the variables in wage-change consequences, see Lester, Chapter 8.)

And so to summarize. A customer (big and scarce) lost for lack of production is a loss the finality of which impresses management more than the immediate inability to increase a price to reflect a wage increase, and more than the threat that wages will presently absorb too much of profits. The time will come when the price *can* be increased, the engineers will find a way ("methods" is the word) to increase the productivity to offset the wage. But a lost customer—that sad event—leaves a manager inconsolable.

How Management Sets the Limit

Is there then no limit to what management will pay for uninterrupted production? Obviously in a common-sense world there is a limit. The manager finds it by methods more artistic than precise. He could, with Dunlop's formulation (see Chapter 5) and data now becoming available,²⁰ predict his wage for some years forward and then simply adhere to his prediction. But this would be to substitute theory for judgment. And management respects its own judgment more than theory. He could with Taylor (see Chapter 4) repose a high measure of confidence in collective bargaining and pay under any circumstance what could be "hammered out on the table." But this would be to substitute a technique for managerial judgment, and management does not easily abdicate. Nor does this writer understand Taylor to mean that collective bargaining would in every case produce the right wage, whatever that is. (See Reynolds' comment on the relative inefficacy of wage policy in Chapter 9.)

Management accepts responsibility for determining the top, the point at which interruption of production will be tolerated and profit will be forgotten. And this decision is approached by these steps.

First, management asks itself whether the enterprise is in wage alignment with the external wage structure; and secondly, whether the internal wage structure is in alignment within itself. (See the rewarding chapters by Ross and Livernash on these subjects.) The external comparison, the so-called "pattern," but more especially the comparison within

¹⁹ Calculated from (1) *Quarterly Financial Report—U.S. Manufacturing Corporations* (Federal Trade Commission and Securities and Exchange Commission, 4th quarter, 1953), pp. 6-17; (2) *Annual Survey of Manufacturers* (U.S. Bureau of the Census, 1953), p. 24.

²⁰ See Gerhard Colm, *The American Economy in 1960*, Planning Pamphlet no. 81 (Washington: National Planning Association, December, 1952); and J. Frederic Dewhurst and Associates, *America's Needs and Resources* (New York: Twentieth Century Fund, 1955).

the competitive industry, will be the more influential. Management does not expect to pay a wage much lower than competitors are paying. This would be an admission that the operation is inefficient or the technology antiquated. On the other hand, there will be strong resistance to a wage substantially higher than that which prevails in the competitive industry. The higher rate paid in some noncompeting industry in the area will be less persuasive than a competitor's higher rate hundreds of miles away—unless, of course, the noncompeting plant in the area is a customer or labor supply (usually higher skills) is unavailable except at the area rate. (Automobile labor rates in Detroit undoubtedly influence the rates of many automotive suppliers in the Detroit area. These suppliers could not afford to lose status, that is, fail of supply for failure to conform to automotive rates.) But the labor market for management is primarily the market established by its competitors.

On occasion management ignores all external comparisons and breaks through with a new pattern. Classic examples are Henry Ford's \$5 a day (January, 1914) and General Motors' long-term contract with cost-of-living escalation (May 29, 1948). Such innovations in wage setting are disturbing in the business world. One newspaper account reports something of a symposium in New York City, at which 1914 business contemporaries of Mr. Ford were quoted. "It is too radical a step to take without consulting other automobile manufacturers. It would be utterly impossible for other manufacturers to take up the plan," said Hugh Chalmers. "Mr. Ford has made all the money he has any use for and he now wants others to have a chance. It is not a plan for other companies."—Otis O. Friend. "We are not much concerned. If Ford wants to amuse himself, all right. He can afford it, others can't."—J. J. Cole.²¹ The General Motors cost-of-living plan caused considerable concern in the industrial world. Many critics charged up "another round of inflation" to the scheme.

The point, however, is not the criticisms themselves but rather that they mark these infrequent innovations in wage setting as significant departures from normal adherence to existing pattern. Nor are the factors which induce such innovating decisions as important as the fact that they cannot easily be fitted into traditional wage theory. It is sometimes said that Mr. Ford's decision was founded upon a conviction that in order to have mass production the workers must have enhanced purchasing power to take the product. It is sometimes said that General Motors wanted industrial peace more than wage certainty and that in any case there were understandings between General Motors and the union for operating flexibilities which had a most favorable effect upon labor costs. Here

²¹ *Pittsburgh Press* (Jan. 9, 1914), p. 4.

again the significant fact is that such considerations would lie outside any analysis permissible under conventional wage theory. Indeed a labor contract itself—even for one year, not to mention for five years—finds no place among the discrete transactions which the classical economist selects to support his argument. To say this in another way, it is highly improbable that the “economic man” of the classical economists could manage a modern industrial enterprise. It is probable that today’s industrial management more nearly conforms to Aristotle’s concept of man as a political animal.

To continue, then, with the steps by which the top is determined, management having found its wages in external alignment will look next at the internal structure. So-called inequities, if labor will agree to their correction, will often absorb a few cents “across the board,” and the correction will often prove to be a favorable impact on costs. But in a real wage-issue impasse, correction of internal wage structure is of but little help.

Assume therefore that by external comparison the wage is in alignment and that internal adjustments will not satisfy the wage demand. Assume capacity substantially sold out, and big, scarce customers depending upon the enterprise to feed the pipeline. Assume a wage impasse. The stage is now set for somebody to get hurt. Meanwhile management has been making certain difficult-to-define analyses. Is the issue simple? Is it understandable internally to sales executives, production men, foremen? Even more important, is the issue understandable to customers and competitors? Will the customer agree with the morality of management’s position—not only agree but also suffer inconvenience and cost if the pipeline closes? And what do competitors have to do with the case? Quite simple: If the management of the stricken enterprise seems to be right (a loose concept, but not wholly indiscriminate), competitors will squeeze out a little more production to feed the pipeline temporarily and customers will cooperate without changing patronage. Management asks no one in advance, neither customers nor competitors. A judgment is exercised, moral in nature: “Am I right enough so that big, scarce customers and big, powerful competitors will be tolerant while we have this out?” Then comes management’s answer to labor’s wage demand: sometimes yes, sometimes no, depending upon the outcome of the managerial self-analysis described above. But there will be no one, even in the wings, prompting management on what the slide rule shows the “marginal disutility of labor” to be. (The author has intentionally confined the drama to the run-of-the-mine big business, labor-crisis cases. When the product involves national health or welfare or security, and government is, or may be, involved, the analysis may not be the same; but such cases are relatively exceptional and are not treated here.)

Influence of the Business Cycle

It is obvious that the compulsion to maintain uninterrupted production will be a more potent factor in wage determination on the upswing of the business cycle than on the downswing. True, the need of the manufacturer to hold his big customers is in one respect greater on the downswing than on the upswing. But in another aspect of the situation, on the nether side of the cycle an interruption of production will be less devastating to a customer at the other end of the pipeline because alternative sources of supply are available. If the economy generally is operating at substantially less than full capacity, the chances of irreparable injury to any supplier's customer are slight. Hence the supplier feels less moral obligation to maintain production.

By the same token, the profit becomes a more significant factor at this stage. It is not likely that price can be increased to protect the profit, because capacity to supply is high and demand is low. It is not likely that a customer will consider himself unjustly damaged if his existing pipeline closes, for the very good reason that others are waiting to serve him. Therefore, the manager feels free to protect the normal profit by the simplest, most direct method he knows: resistance to a wage increase or initiation of a wage reduction.

It will be suggested that there are other ways to protect the profit, specifically the introduction of laborsaving methods. But on the downswing the psychology is all wrong for that. Ideas for laborsaving by "methods" come from the managerial grass roots, not from the top echelons of management. The folks in the factory are as painfully aware of the slump in orders as are the brass in the head office. They know that methods changes call for capital expenditures and they hesitate, just as a worker's wife hesitates about a new hat when her man is working half time. And they hesitate for another reason, as human as it is uneconomic: there are already too many "men on the streets" for the local manager's comfort. It is too much to expect him to be vigorous about initiating technological changes to put more men "on the street."

On the downswing the maintenance of profit will clamor loudly for the manager's ear when the wage issue besets him.

Summary

Fresh in the reader's mind will be the preceding chapter, by Pierson—a delineation of classical and recent contemporary wage theories. The reader will now realize how much of managerial action is taken quite without knowledge of how it fits into a theoretical scheme. This is true of much human action.²²

²² Sigmund Freud, *Delusion and Dream* (New York: New Republic, 1927).

The plain truth is that management has done only a modest amount of thinking about labor. It is of some significance that so far as published sources reveal, none of the heads of the 200 corporations came from the new profession of industrial relations. The older professions—engineering, law, and the physical sciences—are more prominent in business leadership.

Management is primarily concerned with products which are feasible to produce in large volume and at lowest possible cost, readily saleable at prices which will recapture the investment and produce a profit to reward investors and nurture a repetition of the process. This is the industrial Valhalla, constantly abuilding by people who, like Wotan, have not thought through in advance the deal which the giants will exact.²³

In summary, labor is asserting claims which stress relationships with the firm—lifetime status—and these claims are difficult to fit into historical concepts of many owner-enterprisers and many disorganized, mobile workers respectively searching out every day the maximum profit and the maximum wage. Industry, on the other hand, that part of it which is big, with heavy technology, thinks of uninterrupted production first, at least on the upswing of the cycle, and profits first on the downswing of the cycle. There are margins in heavy technology, not precisely computed, but believed by management to be sufficiently large to justify long-range forward commitments for supply of products without exact foreknowledge of what the wage cost will be. Status as a dependable supplier, either to big, scarce customers or to millions of adherents to brand (corporate) names, vies with price and profit as a dominant factor in managerial wage decisions.

The reader will recall that these observations emanate from a segment of industry which is quantitatively much less than the whole. But this is the area to watch. One hundred thirty-five corporations own 45 per cent of the industrial assets in the United States.²⁴ Here lies managerial power. It is doubtful that any inept action by government could be so devastating as the closing of all plants by the major automobile manufacturers. Yet their managements have the theoretical power to do just that. An absurd supposition, it will be said; and quite so. But why absurd? What are the conditions and factors that make the supposition absurd? Scholars examine the obvious. Does A equal A? This process of inquiry is the path to new knowledge. Therefore it would be quite irresponsible to end this chapter with the suggestion that because certain facts seem temporarily to elude economic analysis there is no point to further effort.

²³ George Bernard Shaw, *The Perfect Wagnerite: A Commentary on Nibelung's Ring* (New York: Brentano's, 1909).

²⁴ A. A. Berle, Jr., *The Twentieth Century Capitalist Revolution* (New York: Harcourt, Brace, 1954), p. 25.

But further analysis must take account of power. It is the social phenomenon at the root of organic social changes. Negative attitudes toward power, government controls, and antitrust legislation are valid, but of limited significance. Likewise, concepts of countervailing power will bear close scrutiny. Power either goes blindly to its own destruction or learns, as the Norman kings learned (John at Runnymede) and the King of Siam learned from Anna,²⁵ the conditions upon which society will accept it and use it for organic social development.

In this process of accommodation, the thinker, sometimes a prelate serving as conscience to the king, sometimes a scholar examining the obvious or the allegedly inscrutable, plays an indispensable role. If in this volume new wage theory is in the making, the end may be better uses of capitalism in our long struggle for the best of possible worlds.

²⁵ See the song "A Puzzlement," in the book and lyrics by Oscar Hammerstein for the musical play *The King and I*.

3. Trade Union Behavior in Wage Bargaining

The wage-bargaining behavior of American labor unions reflects a multiplicity of conditioning forces. These include a diversity of industrial situations, regional differences, and patterns of union evolution that range from a hundred years of struggle, in the case of some crafts, to the turbulent economic developments of the past two decades.

The behavior of different unions in wage bargaining displays both similarities and diversities. Broad similarities are almost inevitable, given the highly interrelated character of the American economy and American society.¹ But economic factors constitute only one of the forces at work and they are modified and often overshadowed by institutional influences and the role of leadership. As will be seen even in this short survey, unions that operate in broadly similar corporate and industrial environments frequently display quite different wage-bargaining behavior. This is true whether one views the results of their activities as the product of conscious development or as more or less "intuitive" responses to particular conditions.

The union possesses considerable discretionary powers in collective bargaining. The framework within which bargaining takes place is usually far from rigid; it contains potentialities as well as limitations. Alternative choices among monetary and nonmonetary issues must be made in bargaining demands. Likewise, alternatives must be selected in the final decisions. The outer limits are probed and alternative choices are weighed in the light of institutional factors, membership pressures, and personal predilections of leadership, as well as economic factors.

UNION WAGE PHILOSOPHY

An examination of trade union behavior in wage bargaining requires an attempt to distill the trade unionists' commonly held convictions and

¹For a brief summary of the way some of these "nationalizing" forces operate in the collective bargaining scene, see E. M. Kassalow, "New Patterns in Collective Bargaining," in Richard A. Lester and Joseph Shister, *Insights into Labor Issues* (New York: Macmillan, 1948), pp. 116-133.

assumptions. This is not an easy task because the central actors in the bargaining process rarely articulate their guiding viewpoints and motivations. But if one believes, as do the authors, that there is an organized labor movement in the United States, it should be possible to distill the underlying convictions and views of most union leaders from the policy declarations and statements that emanate from federation and international union headquarters and from an observation of events. It is chiefly on the basis of the authors' experience and acquaintance with the unions in the mass-production industries that this attempt is made.

Collective bargaining and wage pressures are the principal "business" of unions. These are as normal and as basic to unions as are the production and sale of goods and services to firms. Underlying the pragmatic result of wage bargaining, it is well to note, there is a strong "ideological" current, even though it is not always articulated. And there is a firm conviction in the minds of union officials that unions in collective bargaining can and do substantially influence the working and living conditions of their members and, to some extent, general wage levels and national economic trends.

Some academic economists may have doubts about the economic impact of trade unions, but to the average American union leader on the national or local level, there is no question about organized labor's economic effectiveness. This average unionist has probably come of age in a period of general, almost steady, advance in the living standard of the mass of workers. In case after case, he has seen with his own eyes the manner in which the union wrested from employers concessions which they resented making. What would have been the wage level in his plant or industry in the absence of his union? No one can tell him that a particular settlement would not have been thirteen cents instead of fifteen cents if his union had not applied that last bit of pressure. Nor can it be gainsaid, as he sees it, that unions have had a significant influence on internal wage structures and in minimizing interplant differentials. Furthermore, most union leaders have an underlying conviction that organized labor's economic effectiveness extends beyond the individual firm and short-run considerations; they are convinced that the general level of real wages and fringe benefits would be lower in the absence of widespread collective bargaining.

In a very real sense, this belief in the economic effectiveness and importance of union action is an indispensable element in the *élan vital* of the American labor movement. Since organized labor is more than a mere economic machine—being fundamentally a social movement—belief in its own economic power and destiny is indispensable to its general progress.

To the trade unionist, wages and fringe benefits are not merely a cost to the firm, as employers and classical economists frequently view them.

They are also income for human labor, and the wage bargain has strong ethical overtones that sometimes overshadow cost considerations. Although the possible effect of a bargain on employment is a limiting factor, nevertheless wages and working conditions, in the unionist's view, must meet certain standards of health, safety, decency, and relationship with wages and working conditions in the industry and area, regardless of costs.

Continuing improvements in wages and fringes, to the trade unionist, represent the primary means by which wage and salary earners may improve their living conditions. In the unionist's view, it is both morally right and economically necessary for wage and salary earners to receive an adequate share of the benefits of industrial progress; the alternative is the development of an unbalanced distribution of income that undermines the operation of the economy at maximum levels.

Underlying the union leader's activities in wage bargaining, there is a conviction that wage pressures play an important role in the national economy. On the cost side, with which unions are less concerned than employers, wage pressures are a challenge to the firm to maintain or reduce its production costs through improved efficiency and a rising volume of output; in that way, unions have some influence on the economic environment in which bargaining takes place. On the income side, increases in wages and fringe benefits provide part of the basis for expanding consumer markets. Trade union wage pressures for improved living conditions for workers form one of the forces within the national economy that provide, on the one hand, an incentive to management for productive efficiency and growth and, on the other, part of the basis for a rising sales volume.

To the trade unionist, organized labor is an integral part of the economic system and wage pressures are among the system's motivating forces. The organized labor movement, as he sees it, however, is not a rigidly uniform institution, but rather a diverse association of a multitude of international, regional, and local unions that attempt to apply their commonly held convictions within the framework of differing economic and institutional environments.

Labor versus Commodity Pricing

Union leaders are practical men of affairs and the membership does not demand a theoretical framework for union policies. But the unions do have a wage "policy"—not an academically rounded ideology, but an underlying set of views and firm convictions. These views concerning wage setting are quite different in many significant respects from those commonly expressed by management officials and classical economists.

The emphasis among most management officials and classical econom-

ists is upon wages as a cost of production, with rather clear-cut implications for employment and prices. Wage setting, as the pricing of labor, is considered in this view to be comparable to the pricing of commodities. The trade unionist's ideas about wage determination proceed from different considerations.

It is generally agreed that labor differs from commodities. Labor cannot be separated from the personality of the human worker. The employment of labor implies a continuing relationship, while the purchase of a commodity is a much more simple transaction that takes place at a given time. Wages are determined unilaterally by the employer in an unorganized firm, by collective bargaining where union organization is recognized; in the commodity markets, the seller commonly determines the price, and in most cases, the seller has greater influence upon the price of a commodity, through his influence on production, than employees have upon wages, even when collective bargaining prevails.

From their earliest days, unions have maintained strenuously that labor is not a commodity and that wage determination should be viewed as different from the pricing of commodities. The Clayton Act of 1914—with its declaration that "the labor of a human being is not a commodity or article of commerce"—was hailed by the American Federation of Labor as labor's Magna Charta. While the Clayton Act has had some influence on the legality of union activities, it apparently has had little influence on thinking about wage determination.

In the union view, ethical and social considerations properly belong in the area of wage determination. Wages are not merely a cost to the firm but also an income for workers and their families. They should be considered, therefore, not exclusively in terms of the firm's cost structure, but also in terms of the needs of workers and their families to maintain at least a minimum standard of living according to general economic and social conditions at the time.

Ethical and social considerations may, indeed, be overriding to the trade unionist. Substandard wages are viewed as an evil that should be eliminated regardless of cost considerations. In practice, however, the union's decision is not based on a mechanically rigid formula. Although the union is not tied to the welfare of the individual firm as is the entrepreneur, it seeks to maintain and expand employment opportunities in the labor market.

Federal Minimum Wage

Judgments concerning the precise amount of a minimum wage change over the years as price fluctuations occur and as improvements in social and economic conditions alter our generally accepted idea of an American standard of living. The possible effect of a large wage increase on

employment may be a limiting factor from the union's viewpoint. But the union leader also knows that production-cost relationships are not static; union pressure to eliminate substandard wages may be the force that prods the inefficient firm to improve its efficiency, thus enabling it to pay the minimum wage and remain in business. The basic question, however, to which the union leader answers in the negative is: Shall workers subsidize the continued operation of inefficient firms through substandard wages?

Public policy tends to join with the trade unionist in this view that nonmarket considerations have an importance in wage determination. Wages are, to some extent, regulated by state and Federal law. The Fair Labor Standards Act of 1938, which establishes a Federal legal minimum wage, states that the purpose of the act is to eliminate as rapidly as possible "labor conditions detrimental to the maintenance of the minimum standard of living necessary for health, efficiency, and general well-being of workers" in covered industries "without substantially curtailing employment or earning power."

Congress proceeded to enact minimum-wage legislation—and to raise minimum-wage levels—despite the outcries that many firms would be forced out of business. Implied in these congressional actions has been an acceptance of the trade unionist's insistence upon ethical and social considerations in the setting of wages. The public policy viewpoint apparently is that some minimum wage must be set, with due regard for its possible impact on employment, but in the last analysis, all firms in the covered industries must pay at least the established minimum, regardless of cost considerations.

Studies of the impact of the Fair Labor Standards Act and its amendments underscore the trade unionist's skepticism about complaints that wage increases in low-wage industries are pushing hosts of firms out of business. With few exceptions, firms that were compelled by legislation to raise the wages of their employees in October, 1938, and January, 1950, managed to remain in business; most of the marginal producers reduced their production costs through improvements in efficiency.

A Department of Labor study of the short-run effects of the January, 1950, increase in the statutory minimum wage from 40 to 75 cents an hour, for example, indicates that "the 75-cent rate had only minor determinable effects on employment and other non-wage variables in the five low-wage manufacturing industries surveyed. Even within as selected a group of establishments as those with reported adjustment problems, the non-wage consequences of the 75-cent requirement were on the whole not very substantial."²

² *Results of the Minimum-wage Increase of 1950* (U.S. Department of Labor, August, 1954), p. 19.

The American trade unionist, however, is interested in much more than a minimum wage that meets a minimum standard of living. To him, the establishment of such a minimum wage is a necessity to protect workers in the lowest-paid and weakly organized industries. But he views it merely as a floor from which he can proceed to improve living conditions beyond a minimum standard.

As the trade unionist sees it, a firm's wages should also meet the prevailing wage level in a common-industry segment of firms. An important function of wage bargaining to the trade unionist is the elimination of wage inequities. Basic wage rates for jobs of similar content in the same company or in a common-industry segment of firms should likewise be similar, in the union leader's view. The elimination of wage inequities—intraplant, as well as among plants of the same company or among companies of a common segment of firms—is the substance of much collective bargaining, although it lacks the luster of big wage drives and seldom makes headline news.

The idea of "equal pay for equal work" is deeply ingrained in the thinking and tradition of the unions. Their drive for workable and rational wage structures based on job content and output, rather than on discriminatory practices or mere accident, is an integral part of their wage policy. The trade unionist's justification for the elimination of wage inequities is, in part, ethical. Why should two workers who perform similar tasks in the same firm or labor market be paid widely divergent basic wage rates? the trade unionist asks.

If the firm is inefficient and cannot pay the prevailing wage—or cannot provide the prevailing wage increases—should its employees subsidize its continued inefficiency? The trade unionist replies typically in the negative, but in practice his answer may be softened by the union's organizational weakness, by a friendly collective-bargaining relationship, by the possible effect of a large pay raise on employment opportunities, or by the extent to which the firm is willing to grant concessions in this or other areas of bargaining; some accommodations may be made to help meet the firm's problems.³

The elimination of wage inequities among plants of the same company or among companies in a common-industry segment of firms does not necessarily lead to uniform labor costs. Differences in man-hour output,

³ As regards the elimination of wage inequities, it has already been mentioned that public policy tends to lend a degree of support to the trade unionist's view. Under the Walsh-Healey Public Contracts Act of 1936, workers employed by a firm that receives government contracts in excess of \$10,000 must pay not less than the prevailing minimum wage for such work, as determined by the Secretary of Labor. The law applies to all employees in the manufacturing or furnishing of materials under such government contracts.

in wage-incentive payments, and in local plant administration of the collective-bargaining agreement, as well as a multitude of other factors, tend to make uniform labor costs practically impossible, except in rare situations.

In the trade unionist's view, wage-incentive systems and piece rates, as well as job classifications and basic wage structures, should be subject to collective bargaining between unions and management. This aspect of the unions' wage policy has been of particular importance in the mass-production industries, where wage-incentive systems developed on the basis of unilateral management decisions prior to the growth of effective unions. Considerable effort has been made in support of the unions' insistence that they have a right to a voice in determinations affecting wage structures, job rates, and incentive systems. And a great deal of time has been spent by unions in enforcing that right, during these years of frequent changes in machines, production processes, work flow, and job content; as a result, local unions engage in frequent bargaining on specific job classifications, job rates, and earnings, creating and eliminating intra-plant wage inequities.

WAGES AND PRODUCTIVITY

Most of the drama of wage bargaining—and a major part of the trade unionist's economic views—however, is derived from the unions' drives for general wage increases as a means of improving the living conditions of workers and their families. Such continuing improvements are made possible by the economy's growth and by its rising man-hour output, which tends to reduce production costs. The question posed by the trade unionist is: How shall the benefits of industrial progress be shared?

Wage and salary earners have an ethical right to an adequate share in the benefits of rising man-hour output, in the trade unionist's view, since workers contribute to the economy's improving efficiency. It is their labor that produces the product—their cooperation, suggestions, and frequent improvements in work flow and machines that make possible a continuing increase in efficiency.

The trade union leader considers it necessary that wage and salary earners—the largest group of consumers—receive an adequate share of the fruits of industrial progress, on a continuing basis, along with business and consumers generally. Expanding consumer markets are needed for a rising volume of sales to match the growth in output; growing markets are needed, too, to provide an incentive for businessmen to invest in continued improvements in productive efficiency and in an expanding volume of goods and services.

Labor's Share of Productivity Gains

In contrast with the classical economist's view that the "inexorable forces of the market place" will balance things out in the long run, the *continuing* advance of general wage levels through collective bargaining has long been a major objective of American unions. In 1897, for example, Samuel Gompers wrote: ". . . were the consumptive power of the workers to keep better pace with their productive ability, the anomalies of a people going a-hungered with ever-recurring industrial, commercial, and financial panics, crises, and stagnation—in the midst of plenty—would be unknown."⁴ But the unions of those days were compelled to concentrate much of their efforts on a defensive fight to maintain their organizations, to repel recurring drives for wage cuts, and to eliminate sweatshops and similar social evils.

In 1925, the American Federation of Labor's declaration on wage policy called for continuing increases in real wages in proportion to rising productivity. The declaration stated: "Social inequality, industrial instability and injustice must increase unless the workers' real wages . . . coupled with a continuing reduction in the number of hours making up the working day are progressed in proportion to man's increasing power of production."⁵

The unions of the 1920's, however, were weakened by concerted employer attacks and they did not have the bargaining power to press their point, except in scattered trades and localities. It was not until the spread of effective union organization in the early 1930's—and the successful organization of unions in the mass-production industries—that organized labor achieved sufficient strength to bargain with employers for continuing improvements in real wages and to influence general wage levels. Following World War II, the unions' wage and fringe-benefit drives became a recognized economic factor. The insistence of unions on *continuing* improvements in real wages was put forth in detailed wage-bargaining briefs and numerous publications, as in the postwar briefs of the auto workers and steelworkers unions and CIO publications.

Implementing Policy: Continuing Wage Increases

Formal recognition of this principle by a major company came only in 1948, in the two-year agreement between General Motors and the United Automobile Workers, to be followed by similar agreements with the

⁴ Samuel Gompers, *Seventy Years of Life and Labor*, vol. II (New York: Dutton, 1943), p. 13.

⁵ Harry A. Millis and Royal E. Montgomery, *The Economics of Labor*, vol. III, *Organized Labor* (New York: McGraw-Hill, 1945), p. 412.

other auto companies. This contract provided for quarterly cost-of-living wage adjustments to protect the purchasing power of workers' hourly wages. But of much greater significance was the annual-improvement-factor provision for an increase of 3 cents an hour in wage rates in 1948 and 1949 "to provide for improvement in the standard of living of employees."⁶

The five-year agreements negotiated in 1950 between the auto workers and the auto companies, as well as the three-year contracts of 1955, have carried over the annual improvement factor, with its provision that real hourly wages should advance each year along with the national economy's rising productivity. The General Motors' agreement states that "the annual improvement factor provided herein recognizes that a continuing improvement in the standard of living of employees depends upon technological progress, better tools, methods, processes and equipment, and a cooperative attitude on the part of all parties in such progress." Annual-improvement-factor provisions in collective-bargaining agreements have spread, to a limited extent, to other mass-production industries—building into segments of the economy a formal, institutional recognition of the right of workers to progressive advances in living conditions.

While some trade unionists have objected to the automatic provisions of these agreements and have preferred to retain the right to bargain at frequent intervals, these contracts represent a clear break with the classical economic theorist's dependence on the operation of "inexorable" market forces. Although many union leaders prefer techniques that differ from the annual improvement factor, they are generally agreed that workers have a right to progressive advances in real wages as the means for sharing adequately, and on a continuing basis, in the benefits of the nation's industrial progress. Whether through automatic wage adjustments in long-term agreements or through wage increases obtained in negotiations at the time of contract renewals or reopenings, the unions have been bargaining for continuing increases in workers' real earnings.

One of the major long-run wage-bargaining goals which the unions seem to be evolving is that real hourly wages should increase, on a continuing basis (coupled with further reductions in hours of work), in proportion to the current average annual percentage rise in the man-hour output of the national economy, provided that existing wage levels and fringe benefits in the firm or industry are comparable to those that prevail generally in the industry or area. Such wage increases—obtained through yearly negotiations, the annual improvement factor, or other

⁶The amount of the annual improvement factor has been increased in subsequent agreements, indicating that the contracts do not involve a permanent or even long-run precise mathematical formula.

techniques—would give workers a share of the benefits of industrial progress.

Criticisms of Union Policy on Productivity Gains

Such wage improvements would not grant workers all the benefits of the reduced production costs that flow from rising man-hour output, since direct labor costs in any particular firm are merely one part of the total cost of production. (In a firm whose direct labor costs are 25 per cent of total production costs and whose man-hour output is rising by 4 per cent a year, a 4 per cent increase in hourly wages would provide the workers with only a part of the savings from reduced production costs.) Companies whose man-hour output is rising at or above the national average rate could grant wage increases equal to the national percentage rise and distribute the remaining share of the benefits of industrial progress between themselves (in the form of increasing profits through a rising volume of sales) and consumers (through price reductions).

If wage and salary earners were to share in the benefits of rising man-hour output on this continuing basis, the general price level could remain relatively stable, provided that competition, popular sentiment, and public policy combine to prevent excessive unit profit margins. Under such conditions, some prices may rise—in industries where man-hour output is not improving; other prices may decline—in industries where man-hour output is rising more rapidly than the average for the national economy.

Business spokesmen and economic theorists often maintain that workers would receive a more adequate share of the benefits of rising man-hour output through price reductions than they can through wage increases. It is maintained further that such a process is socially desirable and more equitable since all groups in the population would share in the reduced prices.

Theoretically, this view may appear to be plausible to some degree, although a falling price level has an undesirable depressing effect on business investment and on economic growth. To the trade unionist, however, it is unrealistic and fails to consider the actual nature of the economy—the domination of many markets by a few giant firms, administered prices, and the absence of the theorist's pure competition. The price level generally and industrial prices in particular do not fall in automatic response to reduced production costs, as the trade unionist knows from his experience. His major leverage, as he sees it, is the organized strength of his union and its power and ingenuity in collective bargaining; his major emphasis in wage bargaining is on continuing increases in real earnings.

Much of the driving force behind organized labor's wage demands

derives from the conviction that workers must gain continuing wage increases if they are to obtain an adequate share of the benefits of the economy's rising productivity. At the 1955 convention of the United Automobile Workers, Walter Reuther put it this way:⁷

We go to the bargaining table and management says: "Don't you ever get tired of asking for more and more and more?"

The answer is: as long as science and technology make "more" not only economically just but economically necessary, we are going in year after year and ask for "more and more and more" because we are entitled to "more and more and more."

IMPACT ON THE NATIONAL ECONOMY

To the American trade unionist, collective bargaining is the major method for improving working and living conditions. Political action, in his view, is important, but its role is usually an auxiliary one. Hence his emphasis on achieving improvements through collective bargaining in wage structures and levels, hours, working conditions, job security, and fringe benefits.

The scope of collective bargaining, as the trade unionist sees it, has no rigidly established outer limits. George Meany described the progression of organized labor's collective-bargaining demands when he stated:⁸

In recent years certainly the scope of collective bargaining has expanded considerably. Where once it included largely wages, hours and maintenance of health and safety conditions, and, later, hiring, firing and promotion, it now includes medical care, pensions, and the like. Today labor is beginning to question the unilateral right of management to set production standards and even (as in the recent hatters' strike in Norwalk, Conn.) to stipulate the location of a plant.

To most foreign trade unionists, collective bargaining plays a less important role. They tend to relegate to the political and legislative field much of what American unions view as proper bargaining issues. As Rothbaum indicates in Chapter 11, their emphasis is frequently on legislation and central government planning rather than on collective-bargaining relationships.

Unionism in an Expanding Economy

The American environment and collective-bargaining successes have helped to produce a trade union movement that looks upon itself as an

⁷ CIO News (Apr. 4, 1955), p. 10.

⁸ George Meany, "What Labor Means by 'More,'" *Fortune* (March, 1955), p. 93.

integral and motivating force within an expanding economy. The emphasis of the unions is upon full employment, economic growth, and the right of workers to share adequately in the fruits of such growth through continuing advances in real wages.

The operation of neither the national economy nor the firm is static in this view. Union pressures on wages continue; man-hour output has risen in the past and probably continues to rise at present; production-cost relationships are shifting; major technological changes and a multitude of minor improvements in production methods are being introduced; and wage increases are being obtained.

In this process, management knows that the union will not permit labor costs to go down for too long, since it would broaden the gap between the worker's pay and the value of his services to the employer. If production costs are to be reduced—under the sustained wage pressures of the unions—then laborsaving techniques must be introduced continuously and man-hour output must be raised. The unions, therefore, have an influence on the economic environment in which bargaining takes place. Wage pressures that prod employers into a constant search for greater efficiency have tended to replace the stimulus of the shortages of labor and skills of an earlier day.

Improving productive efficiency, however, means increased output for the national economy if full employment is to be maintained. The growth of output can be sustained only if sales continue to rise, and the union leader is convinced that rising real earnings for workers are essential to growing consumer markets and a rising volume of total sales. Expanding consumer markets, in turn, provide an incentive for continued business investment in machines, construction, and services. Wage pressures, therefore, are viewed as one of the forces for growth and stability within the economic system.

Unions, Wages, and Productivity

An examination of available data on man-hour output and real hourly wages seems to bolster the view that union influences on general wage levels have a significant effect on economic developments. Despite the inadequacy of data on wages and man-hour output, especially the latter, certain figures reveal the trends, even though they do not provide precise measurements.

These figures indicate that real hourly earnings in manufacturing increased about as fast as man-hour output in the economy's private sector between the two terminal points, 1921 and 1953. If the available data were more adequate, and had recent gains in fringe benefits been added to real earnings, it is possible that the resulting figures might indicate a slightly greater rise in real earnings than in output per man-hour between

**INDEX OF REAL HOURLY EARNINGS AND REAL PRIVATE PRODUCT
PER MAN-HOUR (1921-1953)**

Year	Real Hourly Earnings in Manufacturing Industries	Real Private Product per Man-hour
1921	100.0	100.0
1923	106.2	113.3
1925	108.2	121.3
1927	110.0	123.0
1929	114.5	125.1
1931	117.5	124.6
1933	118.5	116.3
1935	139.0	136.3
1937	144.7	144.4
1939	158.1	152.7
1941	165.6	168.8
1943	179.2	170.6
1945	186.9	188.6
1947	187.8	178.7
1949	199.2	193.6
1951	204.5	209.0
1953	221.8	222.1

SOURCE: Bureau of Labor Statistics and *Potential Economic Growth of the United States during the Next Decade* (Joint [Congressional] Committee on the Economic Report, 1954). Note that the Bureau of Labor Statistics' wage data for 1939 and later years are not strictly comparable with earlier years. The above earnings index for 1941 and later years uses straight-time hourly earnings, which are not available for the years prior to 1941.

1921 and 1953. But between those dates, there were some interesting trends of general economic significance.

Union Wage Pressures and Business Cycles

During the 1920's, when organized labor was weak and on the defensive—this was the era of the American Plan, employer open-shop drives, and "welfare capitalism"—real hourly earnings of manufacturing workers lagged far behind rises in real private product per man-hour; the economy's man-hour output rose much more rapidly than the purchasing power of workers' wages. In the context of an increasingly efficient mass-production economy, this imbalance contributed to the inability of consumer markets to expand with sufficient rapidity.

It is true that this economic imbalance of the 1920's was a passing phase and that a degree of balance was achieved in later years. That improved balance was achieved, however, at the cost of mass unemployment. A catastrophic depression reduced the price level and helped to raise the real hourly earnings of manufacturing workers fortunate enough to be employed, while output per man-hour lagged.

"The inexorable forces of the market," unaided by strong trade union bargaining—or by monetary, fiscal, and other government stabilizing

policies—contributed, on the one hand, to the creation of the economic imbalance and, on the other, later helped to adjust the economy through a depression. It is questionable, from the viewpoint of any group in society, whether this type of development can be described as wise social policy.

In more recent years, since the late 1930's and early 1940's, the trend has been significantly different. For whatever the data are worth, they do indicate that real hourly earnings in manufacturing and real private product per man-hour have tended to move much closer together than in the 1920's. During this recent period, consumer markets have tended to expand more nearly in line with the improving ability of the economy to turn out a rising volume of goods than was possible thirty years ago. While several factors have contributed to this healthier trend, including wartime wage and price regulations, there can be no escaping the fact that the more effective wage bargaining of the unions has made a substantial contribution.

Even during the 1949 and 1954 downturns in economic activity, the unions succeeded, by and large, in defeating widespread wage cuts of the type that occurred during previous periods of decline. Many unions obtained wage gains in 1949 and 1954, and the general level of real wages increased rather than fell. Trade union action, as well as built-in stabilizers, such as unemployment compensation, that did not exist in the 1920's, helped to prevent a contraction of consumer markets that could have contributed to a downward spiral.

In the previous period, the lag of real wages behind rising productivity helped to undermine the cycle's prosperity phase; and adjustments were made as a result of price reductions, curtailed output, and lagging productivity during cyclical declines. Since the development of stronger unions and their more persistent and widespread wage pressures, the general level of real wages has moved up, on a continuing basis, throughout cyclical movements; and it has risen in a line that is more closely parallel to the trend of increasing productivity.

To many economic observers, this contribution of strength to the national economy is of little or no consequence. "The inexorable forces of the market place," in their opinion, will always balance things out in the long run. Even so sympathetic a student of organized labor as W. S. Woytinsky writes: "Economic realities will prevail, as always, over the intentions of the parties concerned. Raises in money rates will be concentrated in good years and partly offset by rising prices, and in bad times real hourly earnings will be shored up by price declines, without any rise in money wages."⁹

⁹W. S. Woytinsky and Associates, *Employment and Wages in the United States* (New York: Twentieth Century Fund, 1953), p. 91.

The trade unionist has no such fatalistic view of economic developments. He is convinced that organized labor must act on the wage front and that union activity, in fact, does have an impact on the trend of general real-wage levels. In the union leader's opinion, it makes a considerable difference to workers and to the national economy whether general real-wage levels and consumer markets expand along with the rise in productivity in prosperous periods or whether they lag behind rising productivity, contribute to undermining prosperity by inhibiting expansion of the economy's mass-consumption base, and reach some adjustment with productivity levels only in a general economic depression.

It is for these reasons that informed trade unionists see the organized labor movement as a kind of institutional built-in motive power and economic stabilizer—a dynamic and stabilizing factor in an expanding system—that has an influence both on the economic environment in which it operates and on the trend of general real-wage levels.

VARIETIES OF WAGE-BARGAINING METHODS

Unions do not operate in a uniform manner, despite common general goals and convictions. Differences in the economic environments of particular jurisdictions have helped to produce wide variations in general wage-bargaining methods.

Craft Wage Bargaining

The old unions of skilled craftsmen in the building and printing trades, for example, follow bargaining patterns that are in notable contrast to those of the newer unions in the mass-production industries. The construction industry operates essentially in local markets. Employment tends to be seasonal and the employment relationship between a worker and a particular employer is frequently casual. Labor is mobile within the market and tends to be based on craft skills. A multitude of firms—including contractors and subcontractors—exists in the usual market. Products of the industry, for the most part, are sold in the same local market in which they are produced.

Bargaining relations in the building trades, as a result, are typically between local craft unions and local employers' associations. In the same local market, each particular trade is usually covered by a separate agreement with the employers' association and there may be as many as twenty or more collective-bargaining agreements in the market's industry; there also may be a marketwide agreement between the local council of building-trades unions and the local employers' association covering general industrial relations for all crafts.

The concept of wages to the unions of building-trades workers in-

volves payment for skill. The employer pays for the skill of the craftsman, somewhat similarly to the way in which a patient pays for the skill of a physician. The wage for a skilled electrician is the same, under union agreement in a given market, whether his particular job at the moment is simple or complex; the patient pays the same fee for a physician's call to his home, whether he is treated for a sore throat or pneumonia.

In the local market, the local union of building-trades craftsmen attempts to negotiate standard wage scales with the employers' association. Under the terms of the negotiated agreement, no employer may pay a worker less than the standard wage scale for his craft. Each union attempts to maintain tight union control over all work in its trade in the market.

The emphasis of the building-trades unions is upon a standard wage scale for workers in each craft in the local market. The bargaining process is typically oriented to the local market. Each union jealously guards its craft jurisdiction in an attempt to protect available work for its members. In order to maintain high standard wage scales based upon skill and to stabilize the local labor markets, each of these unions usually has adopted relatively high initiation fees and apprenticeship rules.

Local-market bargaining and emphasis on standard wage scales tend to be prevalent among unions of craftsmen in such other trades as printing. Varieties of local-market bargaining are also to be found in other industries, such as the teamster trades and, frequently, in the retail trades.

Standardizing Direct Labor Costs

In the men's clothing industry, wage bargaining is quite different from the prevailing bargaining methods in the building trades. Labor and material costs, in the men's clothing industry, form the overwhelming share of total production costs. Although the industry produces for the national market, it is characterized by a host of small manufacturing, jobbing, and contracting firms, largely centered in several key market areas; there are only a few large companies. By comparison with most other industries, investment in a firm is relatively slight. Production and employment fluctuate seasonally. Firms frequently appear and disappear in this highly mobile industry; the runaway shop that moves from one market area to another has been common.

The Amalgamated Clothing Workers attempts to establish standard total direct labor costs—which are not always achieved—for the production of specific quality lines of garments that sell for given wholesale prices. Piece rates are the predominant form of wage payment. Industry-wide bargaining between the international union and the national employers' association covers almost the entire men's outer-garment industry. A staff in the union's national office supervises enforcement of the

national agreement and the stabilization program. There is leeway, however, for local joint boards and employers to make adjustments of piece rates within the limits imposed by the standard total direct labor cost. This wage-bargaining procedure developed as an effort by the union and many employers to stabilize the industry and to attempt to eliminate widely differing labor costs in different markets.

National-pattern Bargaining

In the great mass-production industries—such as the basic steel and auto industries—wage bargaining takes a form that is considerably different from the general patterns of either the building trades or the men's clothing industry. These industries are dominated by giant multiplant firms that produce in various parts of the country and sell in the national market. The dominant companies employ tens of thousands of wage and salary earners.

Business investment in plant and equipment is great in these industries; the total number of firms is relatively small. Administered prices predominate in the basic steel and auto industries. The presence of competition arises largely from other industries—as in the competition between aluminum and steel for construction purposes—and from quality, style, and trade-in value—as in the auto industry.

In their wage bargaining, the steelworkers and auto workers emphasize standard wage movements throughout the basic steel and auto industries, in contrast to the emphasis on local-market standard wage scales in the building trades and to the attempt to obtain standard direct labor costs in men's clothing. The typical bargain in the basic steel and auto industries is between the international union and its locals, on the one hand, and one of the dominant companies, on the other hand. It is usually a "package," affecting wages and fringe benefits, centering about a general cents-per-hour or percentage wage increase to be applied to the basic wage rates of workers in the multiplant bargaining unit; in recent years, special wage adjustments for some skilled job classifications have become part of the "package." This wage movement becomes the standard that the union attempts to apply to all the other companies in the industry.

The steelworkers and auto workers unions have also attempted rather successfully to eliminate differentials in basic wage rates between plants of the same company in different geographical areas. Where wage-incentive plans exist, they are subject to bargaining between the local unions and local plant managements, which also administer the details of the basic wage and seniority structures of the plant.

These unions place great emphasis on seniority rights as a means of achieving a degree of job security for the individual worker. Seniority rules affecting layoffs, rehiring, promotions, and transfers are adminis-

tered by local unions and plant managements. There is no union attempt to control the labor supply of the multitude of various types of skilled and unskilled workers in the far-flung labor markets of these industries, except to the limited extent that seniority rules and union security provisions may do so. The unions rely rather on the organized strength of the group, its loyalty and pressure.

These unions that bargain with national multiplant firms have company-wide and industry-wide national orientations. Their activities directly affect scores of thousands of workers in communities throughout the country and, indirectly, many additional thousands in related industries. A single wage bargain in basic steel or auto has a widespread economic impact. A labor-management dispute in these industries is a national issue.

Bargaining pressures by the steel- and auto workers unions are sometimes consciously used as leverage for effecting broad social improvements, as well as changes in wages and fringe benefits. Hard bargaining and strikes by the steel- and auto workers unions in 1949-1950 achieved company-paid pension plans for retired workers; the agreements provided for specified monthly pension allowances to be the sum of benefits, under the Social Security Act, plus contributions from negotiated company pension funds. But the aspect of company-plan supplementation to benefits under the Social Security Act resulted in gaining industry support for raising the act's retirement payments. Whether or not the unions were conscious of the device when their pension drives began, they were fully aware of the broad social effects before the drives were successfully concluded. The almost immediate congressional action to raise Social Security benefit levels—after years of unsuccessful efforts by organized labor and liberals—is testimony to the effectiveness of this type of bargaining leverage.

Similarly, the bargaining drive for guaranteed-wage plans, that culminated in the 1955 negotiations, was presented as a conscious union effort to minimize seasonal fluctuations in employment and to increase state unemployment-compensation payments, in addition to providing a greater measure of security for workers and their families. The supplementary unemployment-compensation payment aspect of the guaranteed-wage plan has been looked upon as a means of prodding industry to support increased weekly unemployment-compensation benefits. As the auto workers' drive gathered momentum in 1954 and early 1955, a number of states raised their unemployment-compensation-benefit levels. The auto workers and steelworkers have also stated their view that guaranteed-wage plans would provide a cost incentive to industry to schedule production in such a way as to reduce wide seasonal fluctuations in employment.

These brief examples of general wage-bargaining methods in the building trades, men's clothing, and the steel and auto industries by no means exhaust the many different patterns that are to be found in the varied industrial environments of the American economy. They merely illustrate the variety of general bargaining methods that unions have developed in the process of adapting to the conditions of their industrial jurisdictions.

THE INSTITUTIONAL FACTOR IN UNION BEHAVIOR

The economic environment is not the only determinant of organized labor's wage-bargaining behavior. The theoretical economists drive economic determinism much too far when they fail to see that union wage bargaining is determined, in part, by institutional and personality factors, political and psychological.

The economic environment of the industry in which bargaining takes place establishes only the framework, and not a rigid framework by any means. But it is the union as an institution, its active membership, and its leaders, as personalities, that determine the union's degree of success or failure within the limits imposed by a rather elastic framework. From the union's side of the bargaining table, each bargain is determined by institutional and leadership factors quite as much as by economic factors.

Trade unions are institutions with political lives of their own. And organized labor, as a whole, has an internal life as vibrant and as dynamic as that of any large institution in the nation. Union policies, of necessity, must aim to satisfy the needs and desires of the membership. There is political competition and rivalry within the trade unions and among them—a factor which bears directly on wage bargaining. The history of the union, the development of its bargaining relations with employers, its internal structure and life, and the impact upon it of the leadership's personalities—all contribute to its wage-bargaining behavior.

Historical Factors and Leadership

Suspicions of the good faith of employers linger long in unions that had to fight every inch of the way, frequently against violent opposition, for recognition and the development of a collective-bargaining relationship. Even after the passage of time softens hostility between top management and international union leaders, deeply imbedded memories and feelings may remain with the union's membership and its regional or local leaders. Such suspicions and hostilities reveal themselves at the bargaining table and in union preparations for bargaining.

The nature of the union's internal development, as well as the history of its bargaining relations, affects its wage-bargaining behavior. The internal battles of the International Ladies' Garment Workers were respon-

sible, in part, for its opposition to piece rates between 1918 and 1933, when the Amalgamated Clothing Workers, in a similar economic environment, accepted them. The auto workers' bargaining strategy and tactics today still reflect, to some extent, the union's factional fights in its formative decade, when these issues were hammered out in long battles between rival caucuses.

The role of the union's leadership may be crucial in wage bargaining. Certainly, John L. Lewis personifies the wage-bargaining behavior of the mine workers. And the wage-bargaining strategy and tactics of the Amalgamated Clothing Workers still bear the imprint of Sidney Hillman, many years after his death.

All the intellectual abilities and arguments of a union leader, well-prepared for the bargaining sessions, will be of no avail when negotiations get tough if his stamina and persistence fail and his committee begins to feel that the contract may as well be signed. The forcefulness and drive of the union leader and his top staff, as well as the support of the membership, are vital.

It is that last bit of pressure and those final concessions that are most trying in negotiations. The employer's "last offer" is frequently merely part of the give-and-take of bargaining. The stories and legends of those last minutes or hours of bargaining are legion in trade union ranks. The instances of those negotiators and bargaining committees that "folded" too soon are numerous enough to underline the importance of the personality and temperament of union leadership in bargaining. So, too, are examples of the gains that were made in the final minutes of negotiations, with the picket lines ready to be formed.

Creative leadership is another facet of the union leader's role in wage bargaining. The progression in the scope of bargaining from the wages-and-hours demands of a half century ago did not arise solely from economic changes and the development of union strength. Somewhere in the process there has been persistence, the play of imagination, and, finally, a breakthrough. New types of wage demands are "created" by bold and imaginative union leaders.

John L. Lewis is identified, for example, with the spread of pension plans. The development of the guaranteed-annual-wage demand cannot be examined without considering the persistence of Philip Murray and the bold imagination of Walter Reuther. Nor can the stabilization programs in the garment industries be discussed adequately without an examination of the contribution of the leaders of the Amalgamated Clothing Workers and the International Ladies' Garment Workers.

Certainly, the economic environment of the industry in which the union is bargaining provides the opportunity for leadership ability. The nature of the union itself and the attitudes of the membership are con-

tributing factors. But the creativity of leadership comes from the temperament, training, and education of the personalities rather than from strictly quantitative, impersonal factors.

The role of creative leadership on a national or industry basis is not difficult to identify. What is all too often ignored is the widespread presence of creative leadership on the local and regional levels of the trade unions. At the lower levels of the union organization, the role of leadership is vital in negotiations, in the all-important task of administering the collective-bargaining agreement, and in daily relations with management.

Membership and Organizational Pressures

The local or international union official is, in effect, a political leader. The degree of membership support he receives may be crucial. He must satisfy his constituents and consider the long-run objectives of his leadership, as well as maintain a bargaining relationship with the employer. His competitors within the union are many, and he is most sensitive to the bargaining achievements of other union leaders. He is constantly forced in bargaining to make choices from among alternative monetary and nonmonetary issues. If he fails to satisfy the membership, there is a danger that sooner or later he will be ousted from office.

Although the multitude of pressures on local, regional, and international union officials does not universally produce a creative leadership, it does contribute to wage-bargaining behavior. Union leaders feel strongly that they should do at least as well as others in wage gains, if they cannot improve upon such gains. Involved in bargaining achievements is the crucial matter of membership support of the union and its leaders. National or local-market prestige accrues to the union leader who can boast of outstanding gains in collective bargaining.

With the spread of trade union strength into most geographic and economic areas of the nation since the mid-1930's, internal competition in the unions and among unions has grown. Union developments provide news items for the press, radio, and television; and bargaining achievements in one locality produce ideas for future negotiations in far-reaching parts of the country. Improved communications have produced a degree of alertness to bargaining developments among union members and the general public that were previously absent. Collective-bargaining achievements frequently have an influence on the bargaining demands of other unions and on wage determinations in nonunion firms.

It is not that rigid patterns are established, to be followed word for word in ten thousand different contracts. Rather, it is that key national or local-market bargains establish goals that other unions try to match or improve. In some cases, these key bargains are national in their scope

of impact and reporting in the daily and labor press; at the very least, key bargains create a general wage-bargaining atmosphere in individual local markets.

A new wage demand or achievement becomes widely known and studied throughout the trade union movement in a short time. The professional staffs of unions—publicity and research—help in this endeavor. Thus creative leadership, especially on the national level, exercises a quick and widespread influence.

The growth of a greater degree of centralized authority in the international union has aided in the building of improved trade union communications procedures in recent years. Public relations, education, and economic research staffs in the international unions' headquarters are now commonplace, though they were a rarity only twenty years ago. Research and legal staffs prepare data and briefs for collective bargaining, compare contract clauses and wage rates in agreements within their own unions and others, and perform a multitude of similar tasks that arm negotiators with detailed information for bargaining sessions.

Especially since the organization of effective unions in the mass-production industries—where bargaining is carried on with large, national multiplant corporations—the unions have learned the importance of explaining their demands to the public through booklets, news releases, radio and television programs, and paid advertisements. Public relations and education staffs help in various ways to bring collective-bargaining information to the union membership and to the public at large. Important negotiations with key companies may be preceded by many months of preparations and planning by union staffs and officers. The auto workers' negotiations in 1955 for a guaranteed-wage plan, for example, were preceded by several years of research, education, and public relations efforts.

The institutional growth of the trade unions—as well as the rapid expansion of most industries and the restless optimism of Americans—has added up to a fairly persistent and widespread upward pressure on wages in recent years, affecting wages in nonunion firms as well as in organized firms. Only in the sick, declining, or poorly organized industries is the pressure a defensive one against reductions in wages and standards; and even in these industries, the unions seek every opportunity to achieve improvements through collective bargaining or legislation.¹⁰ But institu-

¹⁰ As a reflection of its interest in maintaining high national levels of employment and production, organized labor, generally, is concerned with economic legislation and government economic policies. But it is the unions in sick, declining, or poorly organized industries that concentrate a relatively greater share of their attention on such issues as tariffs, minimum-wage legislation, Walsh-Healy determinations, industry migration, and aid for distressed areas.

tional and leadership differences, in addition to differences in economic environments, have produced diverse patterns of bargaining methods, strategies, and tactics.

BARGAINING IN AUTO, STEEL AND RUBBER

A commonly held "philosophy" and persistent wage pressures in an interdependent national economy do not make for uniformity in organized labor's wage-bargaining behavior. The unions are separate, autonomous, self-governing institutions, each with a development and history in many ways unique. The roads by which sometimes similar terminals in wage bargaining are reached vary greatly, and in many cases the very similarities seem to dissolve under closer scrutiny.

Let us take, for example, three unions operating in somewhat similar industrial environments in the post-World War II period—auto (United Automobile, Aircraft and Agricultural Implement Workers of America), basic steel (United Steelworkers of America), and rubber (United Rubber Workers of America). In all three cases we are dealing with mass-production industries dominated by large, national, multiplant corporations, with union histories that date from the rise of the CIO in the mid-thirties, industries that are concentrated in the industrial Midwest, and unions that are particularly sensitive to each other's bargaining achievements.

These three unions are also selected because each has established rather complete control over its basic organizing jurisdiction. They have had an opportunity, therefore, to develop "general" wage-bargaining strategies and tactics, that are more difficult, if not impossible, to attain in poorly organized industries.

Since the end of World War II, the major economic actions and achievements of these three unions have followed a similar configuration. Despite the neat general outline of similarity in wage and fringe-benefit movements, it is possible, however, to disentangle a variety of differences in wage-bargaining strategy, tactics, and behavior.

These differences are evident in such matters as national wage-bargaining practices, as well as in internal wage-administration programs. Although, in some cases, one can distinguish the reasons for these differences in strategy and approach, in others the reasons for differences are too deeply imbedded among a variety of crosscurrents.

Industry-wide versus Single-company Bargaining

Let us consider the question of the industry-wide type of wage bargaining as against a company-by-company approach. A comparison between the auto and steel unions is revealing here.

By 1945-1946, there had emerged in the United Automobile Workers a policy of favoring single-company bargaining as opposed to industry-wide, or even "big-three" (General Motors, Ford, and Chrysler) negotiations. In other words, the union has decided that the most strategic way of effecting major economic changes is to tackle one company at a time and risk a strike there first and probably only there—thus, General Motors was first in 1945, Chrysler in 1949, and Ford in 1955. Once a settlement is reached with the chosen "leader" in a given year, the attempt to conclude similar agreements with other companies in the industry begins. Some variations above and below the first settlement occur in agreements with the other companies, but the wage pattern flows from the first agreement.

In the basic steel industry, on the other hand, the union has tended to follow a policy of bargaining simultaneously with all the major companies of the industry. Even more important, in the final analysis, the union is prepared to move on the strike front against virtually all the basic steel companies simultaneously. The actual settlement, however, is usually made with only one of them—the industry's dominant United States Steel Corporation. This settlement then sets the pattern for immediate agreements with the other companies, with the possibility of some slight variation in terms.

What accounts for this difference between auto and steel bargaining? Without trying to analyze the entire area, a few explanatory factors can be suggested.

In the first place, the economic environments of the industries are different. The nature of the industries' products and the character of competition, or lack of it, would seem to be of considerable significance. Product differentiation and competition make the auto industry quite different from steel. One buys a Ford rather than an auto in general, but one buys structural shapes rather than U.S. Steel structurals as distinct from others.

If the auto workers union had to strike a company—Ford, let us say, to choose one of the industry's big three—a potentially great economic pressure against that particular company would be set in motion. The Ford product market and Ford dealers would be in real danger of losing out to other companies. If the strike were to last any length of time, a shift of customers to other makes would occur—and a loss of this sort can be permanent, not merely a matter of just that year's market. The company's dealership and service-agency setup would be affected, as well as the company's manufacturing units, although dealers' inventories can reduce the risk. While this kind of pressure is potential—if a strike takes place—it is a real factor in bargaining, nonetheless.

For many steel products, it is irrelevant whether one uses U.S. Steel

or Republic or Bethlehem, to mention but three. A strike in any one of these companies would not set up quite the same chain reaction as in an auto company. To the extent that the chain does not rattle down the line from customer to dealer to fabricator to basic supplier, the pressure would be reduced. Again, a shift by an appliance manufacturer from a struck steel company to another company need scarcely be permanent. Certainly the final consumer of the appliance will have no interest one way or another. Then, too, a large part of total steel output moves through warehousing and jobbing channels, rather than through name-brand dealerships, as in the case of automobiles. The lack of the more direct product competition of the automobile industry, the ability of steel consumers (whether steel fabricators or ultimate retail consumers) to shift about easily in their purchases—are among the factors that greatly reduce the potential pressure of a one-company steel strike.¹¹

A traditional tendency toward rather uniform wage and price movements in the steel industry, predating the bargaining relationship with the United Steelworkers, is an important factor contributing to the union's bargaining approach. A study of wage changes among the major steel producers between 1913 and 1932, before the advent of effective union organization, indicates "general agreement in the timing and amount of wage changes throughout the industry and substantial identity in the common labor rates in the Pittsburgh, Youngstown, and Chicago districts. The United States Steel Corporation took the lead in eleven of the fourteen general wage changes during this period; no other basic steel firm assumed the leadership role more than once."¹² George Taylor states: "The economics, geography, and traditions of the steel industry have all exerted strong pressures toward uniformity and inter-relation of movement as respects the terms of employment."¹³

Differences in the evolution of the unions and in the personal backgrounds of their leaderships also account, in some part, for the differences in bargaining strategies. The modern steelworkers union was launched under the aegis of the leadership of the United Mine Workers. This took place when the UMW was at or near its zenith of strength and prestige. At that time, the UMW, in its major economic bargaining, was pursuing a fairly consistent policy of moving against all, or most, of the bituminous coal industry simultaneously, in an attempt to obtain in-

¹¹ Following Hazard's terminology in Chapter 2, a firm that produces for a pipeline is less susceptible to strike pressure than a firm that sells a branded product to the final consumer.

¹² George Seltzer, "Pattern Bargaining and the United Steelworkers," *The Journal of Political Economy*, vol. 59 (August, 1951), p. 322.

¹³ George W. Taylor, "Introduction," in Robert Tilove, *Collective Bargaining in the Steel Industry* (Philadelphia: University of Pennsylvania Press, 1948), p. iv.

dustry-wide movements of wages. This strategy, naturally, must have had considerable influence on Philip Murray, Van Bittner, David J. McDonald, and others who started with the UMW and became the top leaders of the steelworkers. The practice of entwining a major bargaining move with a possible industry-wide shutdown was naturally adaptable to the steel industry and must have seemed to be the only effective means of bargaining after the experience with the coal industry. The formal and centralized leadership of the steelworkers' organizing drives of the thirties also left a residue of strong, central direction in the union. These tendencies were reinforced by the economics of the industry, which, as noted above, lent support to the policy of bargaining simultaneously with all major companies.

In the automobile industry, as well as in the evolution of the auto workers union, centralized leadership has been less prevalent. This absence of a high degree of centralization probably lessened the possibilities of engaging in the type of bargaining that exists in the steel industry. To some extent, the lack of strong leadership at the headquarters level in the first years of UAW history produced a kind of competition among different sections and groups of the union, in so far as wage leadership was concerned. The General Motors and Chrysler locals, for example, vied for the wage-leadership position.

The conscious decision to select one company—General Motors—as the "leader" in 1945 auto bargaining was hammered out in an internal factional dispute between the opposing Reuther and Addes-Frankenstein caucuses. Reuther won his point and the opportunity to indicate his leadership ability by adapting the union's bargaining tactics to the competitive nature of the industry. Almost every crucial bargaining issue that confronted the union in its first dozen years was a political issue to be fought over, debated, discussed, and voted on at local meetings, caucuses, and international conventions. The union, which was organized—and reorganized as a result of internal factionalism and attempted secession—on almost a plant-by-plant, local-by-local basis, did not achieve any substantial measure of internal cohesion and central-headquarters authority until 1948, after the basic bargaining strategy had been formalized. A high degree of central-headquarters authority and internal cohesion has been developed since then, and the union has been in a better position to formulate and follow through on industry-wide bargaining policies.

Although space prevents a detailed consideration of the experience of the United Rubber Workers in regard to simultaneous bargaining with the major companies as compared with a company-by-company approach, it should be noted that this union has resorted to both during its brief history. At one time it seemed to favor simultaneous bargaining with the major companies, but it is now apparently content with an in-

dividual company-by-company approach. "Big-four" bargaining (the industry is dominated by four major producers) has become a relatively dead issue in the union.

The competitive situation in the rubber industry more closely approximates that of the automobile industry than that of the steel industry. The pressures engendered by a strike in any one of the major rubber companies are quite similar to those in the automobile industry. Also, the rubber union resembles the auto workers, more than the steelworkers in its history and development, so far as internal cohesive tendencies are concerned.

Approaches to Incentive Wages

Differences in policies and strategies among the steel, auto, and rubber unions are also notable in the approaches taken to bargaining over so-called internal wage systems. This area involves problems of time-versus-incentive wages and formal job-evaluation wage systems as against less standardized arrangements. Institutional as well as economic factors are responsible for the differences.

On the question of wage incentives, the auto workers union has built a solid structure of opposition to piece-rate and incentive systems. This opposition has its roots in the deep resentment of auto workers to the industry's preunion production standards. It was said in the 1920's and 1930's that ten years in the auto industry, especially working at Ford, were enough to finish a good man.

The first real convention of the UAW, held in South Bend, Indiana, in 1936, made "abolition of speed-up and piecework" a part of the union's five-point program. The officers were instructed by convention resolution to work toward the elimination of all piecework wage systems. Despite the wartime shift of the Communists and their associates within the union to a general support of wage incentives, the Reuther caucus overwhelmingly won on this issue at the 1943 UAW convention. The union then reaffirmed its traditional opposition to wage-incentive systems. Although many individual plants under UAW contracts operate under incentive systems, the union's position remains clear and strong, and the greater part of the industry's plants are on time wages.

The automobile manufacturing process, with its belt-line operations, may conceivably be somewhat less adaptable to piece-rate systems than are the rubber and steel industries. In the latter industries, incentive systems are accepted as part of the warp and the woof of the wage structures. They have been vastly modified by union action, and in some cases professional experts may not regard them as "true" incentive systems. In any event, there appears to be no substantial union interest in replacing the incentive systems with time wages in rubber and steel.

In the case of the rubber workers union, it has become a widespread practice to use incentive systems (and, of course, they vary from company to company and to some extent even among the different plants of the same company as a means of pushing wages forward. Taking advantage of the continuous technological changes that characterize the industry, the local unions seize opportunities to press home a wage gain for a particular job. A few such changes in incentive earnings, flowing out of changes in technology and job content, lead to inequities in relationships between jobs and this affords additional negotiating opportunities for the union. While management complains about such developments, they presumably must be counterbalanced by the generally high rate of man-hour output in the industry. Contrary to usual expectations, if a serious move is ever made to substitute time wages for piece-rate-incentive systems in the rubber industry, probably it will be sponsored by management and, perhaps, resisted by the union.

In the basic steel industry, taking advantage of incentive systems to obtain wage increases appears to have been fairly widespread during the union's early history, but probably was not as extensive as in the rubber industry, where changes in technology and job layouts are much more frequent. In recent years, the development of a trained time-study and engineering staff at the steelworkers headquarters and the more centralized nature of the union and its bargaining relationships have resulted in a more centralized direction of changes in incentive rates in basic steel than in rubber plants. The administration of the wage-incentive systems by local unions and local plant managements, however, provides for a multitude of variations in the way the systems operate in basic steel, as well as in automobile and other industries.

Internal Rate Structures

As regards the wage structure (job classifications and basic wage rates), the steelworkers union has succeeded in obtaining a great degree of stability. This development reflects the union's crusade for a rational wage structure, wartime "chance" occurrences, a certain "maturation" of labor-management relations, and the particular type of bargaining in the industry. The union's demand for "equal pay for similar work throughout the industry" resulted in the National War Labor Board's directive order in November, 1944, which required the union and practically the entire basic steel industry to negotiate for the elimination of intraplant inequities. The Board imposed an outside cost limitation of 5 cents per man-hour for each company, and none of this fund was to be used for a general increase or for the elimination of geographical differentials. But the Board's order specified that interplant wage-rate relationships may be considered in determining the job rates in a particular plant.

The monumental task was completed after the War Labor Board went out of existence and after the elimination of wartime government controls. The Board's order to stabilize intraplant wage-rate structures resulted in the eventual establishment of formal intracompany job-wage classification structures. The April 1947 agreement between U.S. Steel and the union contained a set of thirty standard hourly wages, identical for all of the corporation's basic steel plants, except those of the Tennessee Coal, Iron and Railroad Company (U.S. Steel's Southern operations), where hourly wages were 14½ cents lower. The 2½-cent differential at the Duluth plant was eliminated; the 17½-cent North-South differential was reduced by 3 cents. The cost to U.S. Steel was the equivalent of 5.2 cents per man-hour.

Most of the basic steel industry followed the U.S. Steel pattern. In a study on bargaining in the steel industry, the executive secretary of the War Labor Board's steel commission wrote: "By far the largest part of the industry followed U.S. Steel in adopting the same manual of classification, the same principles of application, and the same wage scales. By a tabulation made in March, 1948, approximately 80 per cent of the industry's employees were covered by the standard wage scales."¹⁴ Almost all the other basic steel companies—those that did not follow the U.S. Steel manual—adopted job-wage classification structures of their own. Virtually the entire basic steel industry has thus been covered by formal intracompany job-wage classification structures, although variations in earnings due to differences in job content and in administrative practices remain.

The union's motives in accepting and helping to develop this type of formal job-wage classification system were many. The drive to eliminate wage inequities was a major consideration. An important factor, too, was that a 5-cent average wage increase was obtained in 1944, in order to rationalize the wage structure at a time when wages in the industry were generally frozen by the War Labor Board. A formal job-wage classification structure also lends itself to the elimination of geographical wage differentials; when two jobs in the same company are described and classified in exactly the same fashion, it becomes increasingly difficult for management to justify different wage levels, even though the jobs are in different plants in different regions of the country.

The North-South differential in basic steel companies was narrowed in 1950 and again in 1952. By 1954, this type of intracompany wage-rate differential was eliminated under terms of the agreement concluded the previous year.

The movement toward eliminating or reducing intracompany wage differentials in the rubber industry illustrates the operation of economic

¹⁴ Tilove, *op. cit.*, p. 23.

and institutional influences that differ from those in steel. The overwhelming concentration of rubber-production facilities in Akron, Ohio, prior to World War II, made the issue of differentials among the plants of Goodyear, Goodrich, and Firestone a matter of less pressing importance than in steel and other industries.¹⁵

Another factor is that company-wide bargaining did not emerge in the rubber-tire-making industry until after World War II. Indeed, the first company-wide contract was negotiated in the winter of 1947. It took more than a year to complete the process of establishing company-wide agreements with each of the big-four rubber producers. In the steel and auto industries, by way of contrast, company-wide contracts were in effect prior to the war. Lacking company-wide bargaining, the union had no real channel for pressing the issue of basic wage-rate equalization. Negotiations were on a plant-by-plant basis. Occasionally, some out-of-Akron local union was successful in obtaining a special adjustment to reduce the differential between its plant and Akron, but this was relatively rare and of minor importance.

During the war, the rubber industry, particularly the big-four companies, expanded greatly, especially outside of Akron. By 1950, Akron's tire-making employees were only about one-third of the industry's total. In Akron, the industry's high-wage center, there was widespread public fear that unemployment would result from competition of the new, more modern facilities, in which wage rates were relatively low. The union, too, shared this concern, although it was quite successful in organizing practically all the new plants.

The ground was fertile for a union drive to eliminate or reduce intra-company differentials. A factor on the union side, however, acted and, to some extent, continues to act as a restraining force: the length of the workday. As a work-sharing device in the thirties, the Akron plants adopted a 6-hour day, and where work was available, a 36-hour week. Except for a few plants in Los Angeles and one in Detroit, this pattern was not followed elsewhere in the industry. During the war the 6-hour day in Akron gave way to an 8-hour day, but with the return of peace the 6-hour day was reestablished. The difference in the length of the workday in various parts of the industry complicates union and worker attitudes and tends to reduce membership pressure for the elimination of wage inequities. The average Akron rubber worker is usually prone to compare his 36-hour weekly take-home pay with the 40-hour pay of his non-Akron brother, disregarding differentials in hourly wage rates.

Nevertheless, the establishment of company-wide bargaining in 1947 and 1948 provided the vehicle for raising out-of-Akron wage rates and

¹⁵ The fourth major producer, United States Rubber, has no plant in Akron. As regards the question of interplant differentials and the general pattern of labor-management relations, U.S. Rubber is somewhat different from the Akron companies.

reducing Akron's hourly wage-rate disadvantage. Indeed, company-wide bargaining in the rubber industry provided more than a vehicle for narrowing the gap between Akron and out-of-Akron wage rates. The annual negotiations, that took one or two months, provided a unique opportunity for local union leaders from different parts of the country to fraternize and exchange information. The lengthy bargaining sessions helped to build a company-wide trade union solidarity.

By 1950, the Goodyear, Goodrich, and Firestone settlements included special adjustments to narrow interplant regional differentials. In 1952 and 1954, some of the settlements again included special adjustments to reduce intracompany wage-rate differentials. Contributing to the development of the union's drive to eliminate interplant differentials has been the role of its research department, which was formally established at the end of 1946. The collection and presentation of the wage-differential problem in concrete, quantitative form undoubtedly helped to crystallize this issue for bargaining purposes. Moreover, the systematic presentation of this data to the union's general wage-policy committee added force to the drive toward the elimination of intracompany wage differentials.

Possibly, the intracompany wage-rate equalization process in rubber-tire-making may never go as far as it has in the basic steel industry. The problem of the differential length of the workday between Akron and non-Akron plants cannot be ignored altogether. In addition, management continues to insist that the very nature of the new plants—with modern machinery and layout—tends to make jobs relatively lighter and simpler than work in Akron.

Thus, despite the common traditional union objective of seeking the elimination of interplant wage-rate differentials, the movement toward equalization in the tire-making industry has progressed much more slowly than in basic steel. When this drive did gather momentum in the United Rubber Workers, it was in response to some very pragmatic needs and opportunities, and it proceeded in a manner that was consistent with the less centralized nature of the union and its industrial environment.

Although we shall not dwell on the interplant wage-rate differential question in the automobile industry, it can be noted that the UAW has followed neither the pattern of the rubber workers nor that of the steel-workers. The auto workers' effort to eliminate intracompany wage-rate differentials goes back to before World War II and it has been relatively successful. The union, however, has not been involved in anything like the formal job-wage classification system of basic steel.

CONCLUSIONS

It is widely conceded that unions may have an impact on short-run wage movements in a particular firm or industry, on internal wage struc-

tures, on hours of work, and on a broad area of nonmonetary issues that are usually grouped under "working conditions." It is the view of the authors of this chapter, however, that organized labor has also had an influence on the long-run trend of the general level of real wages, since the development in the mid-1930's of widespread collective bargaining and the formation of effective unions in the mass-production industries.

Union wage pressures influence the economic environment in which wage determinations are made because they constitute a continuing prod-
ding force on management to maintain efficient, high-volume operations.
The unions likewise have a marked impact upon the determination of wages and fringe benefits over the long run, as well as in the short run.
With the spread of effective bargaining through most of the major sec-
tors of the economy, these union influences have tended to be national
and economy-wide in scope.

The common general objectives of trade unions, however, have not resulted in uniform wage-bargaining patterns or rigidly similar institutional structures. Differences in economic environment, institutional de-
velopment, and leadership have given rise to considerable differences in bargaining approaches. An almost infinite variety of strategies, tactics,
and attitudes can be found in the wage-bargaining behavior of American
unions, with their multitude of decision-making centers in international
unions, regional bodies, joint boards, and local unions.

The development of a realistic wage theory requires an acquaintance with the collective-bargaining process, with management and unions as institutions, with the realities of conditions in the labor markets and com-
modity markets, and with the discretionary power that almost always exists on both sides of the bargaining table. Wage theory must be inte-
grated with these aspects of industrial life and with the wage-determina-
tion experiences of employers and unions.

GEORGE W. TAYLOR

4. *Wage Determination Processes*

The widespread use of collective bargaining in recent years, particularly its government-enforced adoption in the mass-production industries, has brought about important changes in the forces that have to be reconciled in the process of wage determination. One of the necessary steps in developing a wage theory for this day and age, therefore, is the formulation of a theory of collective bargaining. Such a theory will be concerned with the fashioning of wage decisions within the range of policymaking and administrative latitude that negotiators possess.

In this chapter the characteristics of collective bargaining as a wage-determining institution are contrasted with alternative processes which have been and still are utilized. Each process has particular characteristics. Each process constitutes a unique decision-making mechanism and has a marked influence upon the substantive terms of employment. Contrasts between the several processes are particularly cogent as respects the factor of consent, the nature of the agreement, and the consequences of nonagreement.

CONSENT AND THE AGREEMENT

In our kind of a democracy the primary criterion for wage determination is the mutual acceptance of employment terms by the parties of direct interest.¹ The essentiality of this criterion derives from a conviction that employment terms should not be imposed upon either employees or employers.

This basic concept of wage determination has shortcomings that sometimes give rise to doubts about the efficacy of the concept. Employees and employers are sometimes disposed, it is said, to ignore the "needs of the consumer." Negotiators may even fail on occasion to conserve what

¹ A lack of public interest is not implied. Indeed, legislation affecting the processes of determination has been enacted because of public concern about maintaining an "equality of bargaining power." During national emergencies, even the substantive terms of employment have been fixed by government rule. With these exceptions, important though they be, wage determination is conceived essentially as private agreement making between employees and the employer.

appears to be their own economic interests—especially their long-run interests—when they determine wages. The risk that faulty decisions will sometimes be made is inherent in a decentralized system of wage determination grounded upon private negotiation and agreement. Within broad limits, however, such shortcomings are tolerated because the advantages of private agreement making are highly prized.

Employees and employers thus have a responsibility to reconcile their conflicting wage objectives. They are under strong inducement to do so. The rule of "no contract, no work," which applies in the absence of mutual understanding, is a powerful motivating force. Wage determination may be defined, therefore, as the process of discovering those wage rates, and related terms of employment, which the employer will make available and at which employees will work in the immediate future.

Equality of Bargaining Power

The idea that wages are to be determined only by a mutual understanding between employees and the employer is, in essence, a simple proposition. Effectuation of the idea, however, has given rise to complex and controversial problems. The quality of the employee consent, and of the employer consent as well, has become a matter of general interest and of political concern. A coerced consent is not sufficient. The search has been for a process, or processes, of wage determination that will ensure, as far as possible, a validation of the terms of employment by a negotiated agreement between employees and employers who possess what is termed an "equality of bargaining power." This aspect of wage determination largely dominated the history of employer-employee relations in the United States for more than a hundred years.²

One way of giving substance to the elusive notion of equality of bargaining power is to evaluate the consequences to employees and to employers of a failure to agree under alternate processes of wage determination. If a negotiating impasse results in overwhelmingly serious consequences to one party but is of little consequence to the other, a so-called inequality of bargaining power may be said to obtain. If either party possesses what is deemed to be a coercive power, then the process of wage determination from which that power derives is likely to become the

² Early in the nineteenth century attempts of employees to organize unions in order to strengthen their bargaining position were forestalled by court decisions in the famous "conspiracy cases." This policy was subsequently modified. Through the Wagner Act, enacted in 1935, the government facilitated the organization of employees for collective bargaining. In 1947, through the Taft-Hartley Act, the government limited the economic power of unions and regulated certain aspects of collective bargaining. The processes of wage determination have thus been of continuing interest to governmental agencies.

subject of governmental regulation. However, when the consequences of nonagreement are serious to both parties, standards of wage determination are sometimes evolved which are mutually regarded as fair and equitable. Changes in the costs of living, the so-called annual improvement factor, comparative wage rates, and other points of reference are being more and more extensively used in the formulation of wage policies. The factor of consent involves much more than an economic power relationship.

Public opinion about what constitutes coercive power in wage determination changes from time to time, especially with fluctuations in business and employment opportunities. Serious questions in this area do not ordinarily arise, however, if the employees and the employer see eye to eye about the procedures and the standards by which they will reconcile their wage differences. Securing such an understanding is the crux of the problem of effectuating a private process for determining wages. There is, to be sure, a risk that arrangements quite acceptable to employees and employers may be contrary to consumer interests. The extent to which the private wage-determination system will be subjected to governmental regulation depends, in part at least, upon the public appraisal of the seriousness of this risk.

A widespread loss of employee confidence in so-called individual bargaining³—finally shared by the general public—culminated in the Wagner Act, with its governmental support of collective bargaining. Lack of employer confidence in unregulated collective bargaining—finally shared by the general public—resulted in the Taft-Hartley Act. However, employees and employers in many plants and industries have achieved—and are increasingly achieving—a considerable meeting of minds about the process and the standards they will use to determine wages. Nor can it be said that collusion in disregard of consumer interests typifies these understandings.

The procedures for establishing wages, as distinct from the substance of the determination, have long been a separate problem. The consent factor has been mainly responsible. It is not at all implied that the process of determination and the substantive terms of employment are unrelated. But the mutual acceptance of wages, effected under a determination system appraised as “fair” by employees and employer, gives those wages a rightness and a usefulness not otherwise attainable.

Concessions made by the employer and by the employees to achieve an agreement may create economic problems. They may necessitate subsequent economic adjustments. There is, nevertheless, a considerable toler-

³ As will be noted presently, it is more precise to say that the employees' loss of confidence in management-administered wage determination gave rise to a demand for collective bargaining.

ance about such results⁴ because of an overriding desire to ensure against the imposition of the conditions of employment by one party upon the other or by some "outside" agency upon both the employee and the employer. The factor of consent is a vital consideration in wage determination.

Nature of the Wage Agreement

It is necessary then that wages, and related employment terms as well, be validated by an understanding between employees and employers. Several kinds of agreement-making processes are utilized to arrive at various kinds of agreements. What roles are assigned to the employees and to the employer in formulating, modifying, and rejecting proposed terms? Do employees individually accept or reject terms which the employer formulates and institutes? Or should employees more directly participate in the development and in the administration of wage policy? In other words, how are wage decisions made? These questions reflect the wide differences of opinion which have been voiced over the years about the desirability of the collective-bargaining kind of agreement making.

An important characteristic of collective bargaining is that certain policy-making and administrative functions are shared by the management and the designated union representatives of the employees. Employment terms have to be agreed upon by the union and the management before they are put into effect, i.e., before they are offered to individual workers who still retain the right to accept or reject employment at available terms. But the basic wage decisions are made jointly by union and management representatives.

It is significant to note the increase in subjects dealt with by collective bargaining over the years. Organized employees have successfully asserted an interest in bringing more and more employment terms under the joint-determination process. Fewer terms are formulated by management alone. The wage agreement has become a comprehensive and a detailed document covering wages and many related conditions of employment.

In examining the behavior of wages, it is consequently becoming increasingly difficult to isolate wages from the total conditions of employment. "Rule-of-thumb" comparisons of basic wage rates do not take into account critical variations in overtime opportunities, promotion rules, old-age retirement benefits, provisions for health insurance, grievance

⁴There are limits to the public acceptability of the results of private agreement making. Minimum-wage legislation, for example, reflects a conclusion that employees, organized or unorganized, should receive at least a specified wage as a legal right. The national wage-stabilization programs of World War II and the Korean conflict were designed to forestall wage increases that employees could achieve and which employers were often willing to concede.

procedures, production standards, work loads, and a host of other conditions which are integral parts of the wage agreement. A few examples will illustrate. The likelihood of rapid promotions may be more important to employees than the hiring rate. Relatively low wage rates have been acceptable to employees in some cases when explicit assurance of considerable overtime work at premium rates was given.

Many of the clauses governing "conditions" are not so directly or specifically related to the level of wage rates. In their application, however, virtually every one of these clauses has an indirect bearing upon labor costs and employee earnings. The limitation of the employer's right to discipline "for cause" as determined by an arbitrator is one example. In ways that will be subsequently outlined, the effect of such clauses upon costs and earnings and upon the relative competitive position of a company depends upon the manner of their administration in day-by-day operations.

Another distinguishing characteristic of collective bargaining should be particularly noted. A union-management agreement covering all the matters subject to negotiation is ordinarily a prerequisite to the production of goods. "No contract, no work" is the slogan which epitomizes this idea. The employer's right unilaterally to install conditions of employment—to which employees then individually react—is further restricted by law. It will be recalled that in the Inland Steel Case, decided in 1948, the National Labor Relations Board ruled that old-age retirement pensions were a form of wages and subject, therefore, to compulsory collective bargaining under the Taft-Hartley Act.⁵ The immediate effect of the ruling was not only to extend the scope of negotiations but to limit the right of management unilaterally to institute an old-age retirement program or unilaterally to make changes in an existing one. Such questions were assigned to the joint-determination process. To the extent that the employees support their union representatives on these or other issues, a union-management agreement is a prerequisite to the performance of productive operations.

The particular kind of employee-employer understandings which are required to validate the conditions of work through collective bargaining is a matter of no little significance in explaining the behavior of wages. The nature of the agreement is a critical aspect of wage determination.

Consequences of Nonagreement

The latitude of employees and employer to reject employment terms is particularly significant as long as mutual acceptance remains a basic criterion. What happens if there is no agreement? What are the conse-

⁵This decision was later upheld by the Supreme Court. *Inland Steel Company v. NLRB*, 336 U.S. 960 (1949).

quences of nonagreement? These questions must be answered when a final decision is made about accepting or rejecting the terms offered by "the other side."

The upper and the lower limits of the negotiating area are those points at which employer and employees consider the costs of settlement prohibitive. These limits are not precise. They are variously conceived at the start of particular negotiations. They change as a breakdown of negotiations becomes imminent. Modifications occur in order to terminate a strike. The real limits are seldom disclosed in negotiations. Bargaining tactics and negotiating skills must be included, therefore, among the various factors which fashion the wage agreement. The limits within which a wage settlement is achievable, however, are singularly dependent upon the particular process of determination which is utilized, for the consequences of nonagreement vary significantly between the several processes.

The need for an agreement is felt both by employees and by employers, but usually with differing degrees of urgency. This affects their readiness to modify positions in order to consummate the essential understanding. The individual employee who fails to get the raise which his wife urged him to go after, and to which he feels entitled, placates the family by reporting: "The boss said I was entirely free to get a job somewhere else." The union leader explains to a critical membership that "after all, we got as much as could be secured without a strike. You don't want a strike, do you?" The industrial relations director tells his colleagues that a far-reaching concession would never have been made to a union except for the undesirability of an imminent work stoppage. A satisfactory understanding of wage behavior is not possible without recognizing the vital role played in the determination processes by the factor which is here designated as the consequences of nonagreement.

Virtually all wage agreements, and particularly those arrived at by collective bargaining, represent compromises between conflicting objectives. Being differently oriented, the wage objectives of employees and of the employer are bound to be different. An employee whose wife has been urging the need for more money to meet current and accumulating bills is not likely to have an all-absorbing interest in a company's understandable concern about a possible worsening of its competitive position or the need to provide for future expansion of facilities. Strong claims for attention to both short-term and long-term economic well-being arise during wage negotiations. They have somehow to be balanced and reconciled. Not without reason have wage negotiations been designated as "a give-and-take proposition."

Nor can subjective attitudes be lightly dismissed. It has often been observed that the desires and opinions of men are fundamental facts. At any event the conflicting positions which they engender have to be recon-

ciled. In some cases employees simply cannot see why they should receive lower wages or lesser increases than neighbors who do "the same kind of work" for another company. A management does not want to "upset wage levels in an area" and thereby incur the disapproval of those who manage other companies. Institutional considerations are sometimes paramount. Wage changes, or the lack of them, are related to the so-called union-security issue. The examples could be multiplied of similar determinants of the range of acceptability within which a wage agreement has to be consummated.

Every wage negotiation, under each process of determination, has its own peculiar characteristics. The differences which must be reconciled are variously oriented. Thus, as stated previously, wage negotiation may be conceived as a system of communication between employees and employers, regarding their respective needs, directed toward the discovery of those terms at which employers will provide jobs and at which employees will work in the near future. Under each process of determination, penalties accrue from a failure to discover—or for undue delay in discovering—such terms. The need to avoid the consequences of non-agreement constitutes the ultimate motivation for the concessions which are given and taken whenever wage decisions are made.

The Wage-determination Processes

The processes by which the essential employee-employer agreement is developed constitute a significant aspect of wage determination. The consent factor is variously evaluated under the alternative processes; this factor has influenced specifically the development and growth of collective bargaining with a marked effect upon the nature of the agreement and the consequences of nonagreement. These considerations are pertinent because, within the range of latitude in which wage decisions are made, substantive terms depend upon the process of wage determination that is utilized.

Four principal processes of wage determination are examined in the balance of this chapter: (1) individual bargaining, (2) management-administered wage determination, (3) collective bargaining, and (4) union-administered wage determination.⁶ For clarity of analysis, each of these four processes is discussed as though it were a clearly identifiable type. The agreement-making procedures followed in particular cases, however, do not always fall neatly and exclusively into one of these categories. There are overlapping characteristics.⁷ The present analysis is de-

⁶ There has been experience in the United States with a fifth process, i.e., governmental determination. It is assumed, however, that resort to this process will continue to be limited to periods of national emergency.

⁷ If the coercive power is great enough on either side, collective bargaining may

signed to provide guides, or bench marks, for discovering the dominant characteristics of a particular wage-setting arrangement and their effects upon wages.

INDIVIDUAL BARGAINING

Considerable public and governmental support for collective bargaining derives from the conviction that the worker who negotiates individually suffers from "inequality of bargaining power." The consequences of non-agreement are, in fact, often far more serious for the individual employee whose job is at stake than for the employer who is negotiating for the service of but one of many employees. This characteristic of so-called individual bargaining is not emphasized by those who contend that so-called voluntarism in labor-management relations is best preserved by a process requiring the explicit consent of each individual employee to the employment terms at which he will work.

However, the fact is that individual bargaining simply cannot be practiced in many sectors of our complex industrial economy. The individual necessities and desires of each employee have to be subordinated to general rules and regulations which cannot be avoided when large numbers of employees are brought together to work as a coordinated production unit. How are wages and related conditions of work to be specified when the individual employee cannot participate directly in their formulation? This has long been the fundamental question about the manner of wage determination.

It is only in relatively small concerns that individual bargaining is at all feasible. Some service businesses and small manufacturing establishments assign only one or two employees to a certain operation. Each employee may even perform a variety of tasks which change from day to day. Job assignments are not clearly defined, therefore, and the employee does not work at a specialized task. Virtually every employee can be a "key employee" in the sense that the loss of his services could seriously affect the employer's ability to operate successfully. The consequences of nonagreement are significant enough, both to employee and to employer, to induce "give-and-take" negotiations between them. A considerable individual variation in employment terms must also be compatible with operational needs. Wages are then determined for the man, rather than for a job. Scheduled hours of work are also sometimes negotiated separately for different employees where their work is not interdependent. Some cannot get to work as early as others; so it is agreed that one em-

take on some of the characteristics of either management-administered wage determination or union-administered wage determination. Individual bargaining may be practiced under any type.

ployee will work from 7 A.M. to 3 P.M., while another will work from 8:30 A.M. to 4:30 P.M.

There are circumstances, then, under which the determination of wages can be worked out as a series of individual arrangements between each employee and the employer. A high degree of voluntarism then obtains. Nor need the individual employee be burdened by an inequality of bargaining power if he fills a key job. Indeed, when business is good and when manpower is in short supply, small employers frequently complain about having "too little left" for themselves after making the concessions necessary to hold the "experienced" workers upon whom they are dependent. Such employers have been known to establish a market-wide association committed to the "stabilization" of wages. They look to joint employer action to attain what they consider an equality of bargaining power.

Individual bargaining on a give-and-take basis becomes less and less practical when a small company expands. More workers are hired. Groups of workers are assigned to perform a specialized task in repetitive fashion. Differences in rates of pay within a job classification give rise to so many claims of discriminatory treatment that a standard job rate has to be specified. Wage differentials between the various occupational groups also have to be decided upon. Since the jobs are interdependent, shop rules must be promulgated for general application to all employees in order to facilitate the flow of production and to provide supervisors with guides for dealing with employees. As the plant becomes larger, wage administration becomes necessary; that is, decisions have to be made as respects wage structure and conditions of work.

Individual bargaining is effectively utilized to the satisfaction of employees and employer in many small enterprises. However, it may be noted that multiemployer bargaining, or so-called industry-wide collective bargaining, has been widely adopted in the small-scale industries. In those situations, the jobs usually have common craftlike characteristics and the employees look essentially to the labor market rather than to a particular employer for their job opportunities. Waiters and cooks are an example. They seek uniform market rates of pay, particularly to avoid a deterioration of work standards in times of poor business. The employers then frequently associate and negotiate for a master agreement, not solely to achieve a stronger bargaining position, but to avoid an upward spiraling of wages in times of good business. Individual bargaining has but a limited applicability in a complex industrial society.

MANAGEMENT-ADMINISTERED WAGE DETERMINATION

Wage determination in a mass-production economy has come to involve administrative decision making, i.e., the formulation and effectu-

ation of wage programs. The wage-administration function is particularly crucial in manufacturing, where the large majority of jobs are specialized and repetitive. They are the so-called semiskilled jobs. Most employees can perform any of them effectively with but limited training. Scores—or even hundreds—of employees perform the same job and are responsible for about the same rate of production. Their work is interdependent with similar groups of employees. Standard occupational wage rates, uniform hours of work schedules, and generally applicable conditions of employment are an unavoidable concomitant of manufacturing operations in which the specialized work of many individual employees must be closely scheduled and coordinated.

With a few possible exceptions, there are no "key" employees among the semiskilled employees in manufacturing.⁸ The loss of any one man's services is frequently of little or no concern to the employer. Retention of his job, however, is frequently a matter of considerable urgency to the employee. A change of employment is likely to result in the loss of important rights derived from seniority standing. The right of an individual employee to quit his job, therefore, is of limited significance, at least as far as longer-service employees are concerned, in fashioning the conditions of employment.

Craft versus Factory Labor

Another notable change in the employer-employee relationship occurred with industrialization. A new answer was given to the query: For what are wages paid? Wages are paid to skilled craftsmen and to so-called semiskilled factory employees on the basis of quite different assumptions. Skilled craftsmen—those who serve an apprenticeship or have equivalent all-round skills—receive an hourly wage to compensate for the performance of all kinds of work, simple or complex, encompassed by a craft jurisdiction. Possessing a reservoir of general-purpose skills, readily transferable from one employment to another, the craftsman is paid the same wage whenever any of those skills are drawn upon. This concept of wage determination is epitomized by the phrase: "A man is worthy of his hire."

Certain standard conditions of employment for craftsmen can be and are rather generally established by multiemployer bargaining conducted separately for each labor market. This seems to derive, at least in part, from a market orientation rather than an employer orientation of the employees. Because their skills are readily transferable from one employer

⁸ Those who are "key" employees may engage in a limited form of individual bargaining. Their ability to do so effectively, however, is inhibited by management's concern lest "concessions" to an individual employee generate a demand for their general application.

to another, craftsmen look to an entire labor market for their job opportunities and for their economic security. The factory employee, however, is more company-oriented.⁹ He looks to a certain employer for job opportunities and economic security. The effort of skilled craftsmen to maintain or extend their craft jurisdiction is, in a sense, the counterpart of the insistence of factory employees upon seniority rights.¹⁰

The wage rates for most manufacturing operations (the unskilled and semiskilled jobs) are not related to a man's mastery of related skills. They are, rather, dependent upon an evaluation of the skill and effort required to perform each particular job assignment.¹¹ Work assignments in a manufacturing plant vary from time to time, and so does the employee's wage. A man is paid for what he does rather than for what he *can* do. The wage depends in part upon administrative measurements of so-called job content. It is notable, however, that the craftsmen in the mass-manufacturing industries (including those on maintenance work) are usually paid as craftsmen; that is, their wages are dependent upon all-around capacity rather than upon particular work assignments. This contrast serves to highlight differences in wage concepts.

Wage determination in factories has a further distinguishing characteristic. Since wage relationships are based primarily upon an administrative evaluation of the elements which constitute each job, the job description is important. When the job description changes because of the addition or elimination of duties, a new wage rate may have to be decided upon. The negotiation of wage rates for new or changed jobs is an administrative aspect of wage determination which is among the most controversial and exacting aspects of labor-management relations in manufacturing. The standard output for which a particular wage is payable, i.e., the specification of a "fair day's work for a fair day's pay," is a further task which wage administrators have found to be elusive and controversial.

Various administrative aspects of wage determination, such as those already mentioned, have been conceived by many a company as an es-

⁹ The difference in orientation is illustrated by collectively bargained programs for old-age retirement benefits. Craftsmen tend to establish labor-market funds to which the employers contribute a fixed percentage of each payroll as their sole obligation and from which benefits are paid on the basis of the employees' length of service in the industry. In manufacturing industries, however, a company accepts responsibility for making specified benefits available based upon the employees' length of service with the company.

¹⁰ Not many years ago, a job counselor would advise young men to "learn a trade; then you will be able to earn a good living anywhere." With the growth of large-scale manufacturing operations, it is as appropriate to suggest: "Get a job with a large company and accumulate seniority."

¹¹ Although unions in manufacturing industries have accepted this view in general, they have sought certain modifications—for example, increasing wages as productivity increases regardless of the effort and skill factors.

sential part of the managerial function which should not be shared either with individual employees or with a union. Under collective bargaining these administrative functions are commonly shared between management and union representatives.

It is also important to note the continuous nature of the bargaining over wages and employment conditions which more or less typifies collective bargaining in manufacturing industries. This application of general policies, whether enunciated in a formal labor agreement or not, to the day-by-day operations of a plant give rise to so-called employee grievances. An employee challenges the equity of the rates set by the industrial engineering department on a new job or he questions the selection of another employee for promotion. He objects to overtime rules and sometimes grows restive, for real or imaginary reasons, about the way he is treated by a foreman. These examples could be multiplied many times. Decisions made to settle grievances are among the administrative determinants of labor costs and employee earnings.

An individual employee negotiating a grievance on his own behalf, is likely to feel that he does not bargain on equal terms with the employer. Use of his ultimate economic power, i.e., quitting the job, may carry little or no weight in support of the employee's position. It is not implied, however, that individual employee grievances are invariably mishandled by management. Many an unorganized company "leans over backward" in disposing of grievances in order to avoid the charge of unfair or discriminatory treatment. Some personnel departments are expected to "represent" the employee whose grievance is under consideration. Even so, the bargaining is largely restricted to the application of a company policy and does not embrace the substance of the policies. Under collective bargaining, the union is a joint administrator with management, not only in formulating wage policy, but in applying it in the day-by-day operation of a plant.

As industrial expansion occurred, a distinctive process of wage determination came into being. In the absence of collective bargaining, the basic wage-rate schedule and related conditions of employment, including grievance-handling policies, are enunciated by the management without the direct participation of employees. The terms of employment are then proffered to employees for their individual acceptance or rejection. This process is here designated as management-administered wage determination.

Employee Consent to Management-administered Wage Rates

The several ways by which the individual employee can, in effect, reject the proffered terms constitute a restraint upon the unorganized employer in the formulation and application of wage policies. A volun-

tary severance of employment by an employee constitutes a summary rejection. Employee-turnover data are an important measure of the acceptability of available employment terms. The individual employee can also ostensibly accept the proffered terms and, while remaining on the job as a matter of necessity, give less than a full productive effort. The morale factor has become important in the wage-determination process. Devices such as attitude surveys have been developed to measure this kind of rejection. The employee can reject proffered terms in another way. He can decide that an altogether different process of wage determination—collective bargaining—is essential for his economic well-being. In years past, individual employees were often inhibited in exercising their right to join a union. It was the strengthening of the right of employees in mass-production industries to form unions and, by their vote, to require the employer to substitute collective bargaining for management-administered wage determination that made the Wagner Act so controversial; for this placed an additional restraint upon management in the making of wage decisions.

Under management-administered wage determination, the reaction of individual employees to the management wage decisions can induce their modification. The costs of a high labor-turnover or of impaired employee morale can become prohibitive. The disposition of employees to organize into a union can also result in an improvement of the terms of employment. However, these forms of employee influence upon the formulation and administration of wage policies are indirect and may have costly consequences to employees. Quitting a job may be a serious proposition since seniority rights are involved. Loafing on the job can result in disciplinary action by management. Improvements in employment terms resulting from high labor turnover, moreover, benefit only those who did not quit their jobs. The employee drive for collective bargaining in many plants was doubtless grounded in a desire for less costly and less risky means of rejecting employment terms.

Only a relatively few large manufacturing companies in the mass-production industries have successfully developed management-administered wage determination. A large majority of their employees are convinced of the fairness and equity of the conditions of employment made available by management even in the absence of direct participation in their formulation. Employees do not reject the management-administered terms by quitting their jobs, by unduly restricting their effort on the job, or by voting for union representation. These companies have apparently recognized that the genuine consent of a substantial majority of the employees is essential to a satisfactory and continuing status for management-administered wage determination. Some management representatives have expressed the view that continued adherence to management-administered

wage determination might require even higher wages and better working conditions than would be granted under collective bargaining.¹²

The great labor relations issue of the past twenty years has been over the use of management-administered wage determination or of collective bargaining in the manufacturing industries. Collective bargaining is a process which stands in marked contrast to management-administered wage determination.

COLLECTIVE BARGAINING

The Wagner Act established, as a matter of law, the right of employees in an appropriate bargaining unit to decide, by majority vote, whether or not collective bargaining should be utilized as the wage-determining process. This right was reaffirmed by the Taft-Hartley Act. The consequent widespread introduction of collective bargaining in the manufacturing industries was a momentous event in the development of wage-determination processes.

Under collective bargaining the terms of employment have to be approved, prior to being placed in effect, by the union as well as by the employer. Employees also participate through their shop committeemen and union stewards in applying the terms of the union-company agreement to day-by-day operational problems. Certain administrative functions of wage determination are thus shared by company and union representatives.

Individual employees can react to the terms made available by the union-management agreement in much the same manner as when management-administered wage determination obtains. They can individually quit their jobs, give less than adequate productive performance, or even take steps to eliminate collective bargaining.¹³ If virtually all the employees are union members, especially if they participate in union affairs, the collectively bargained terms are likely to be acceptable to at least a majority of the employees. However, this is not inevitable. The union membership may be a bare majority of all employees and a wage settlement may be approved by a close vote among the relatively few members who attend a ratification meeting. Individual employees and particular groups of employees may be quite dissatisfied with the results of collective bargaining. Many employees, on the other hand, are disposed to approve of the collective-bargaining process, even when they do not avail

¹² It is reasoned, in effect, that the weight of a recommendation of union representatives to the employees is considerable when wage increases are less than expected or when wage decreases are unavoidable.

¹³ The Taft-Hartley Act provides for decertification elections through which the employees can change unions or eliminate collective bargaining.

themselves of their participation rights, on the assumption that the proffered terms are likely to be more favorable to them if the union has participated in their formulation.

There are logical reasons, therefore, for viewing collective bargaining as essentially a process of union-management wage administration, i.e., joint formulation and application of labor policy. Once an agreement is worked out by company and union negotiators, they have a joint interest in convincing the employees that a "good settlement" has been reached. Their roles tend to change from opposing advocates to cooperators. Occasionally company and union representatives stand shoulder to shoulder in defending a wage settlement against the onslaught of a dissatisfied employee constituency.

One of the most important characteristics of collective bargaining is the essentiality of a union-management agreement as a condition precedent to work performance. As already noted, this is in marked contrast to management-administered wage determination. The strike threat unquestionably has to be reckoned with when wages are determined by collective bargaining.

The theory of collective bargaining, certainly as conceived by the labor unions, encompasses the idea that individual employees have no right to work at employment terms rejected by the union. Otherwise the union would not be a coadministrator nor would it be the exclusive bargaining representative for all employees. Whether or not the union function should be so conceived is perhaps the most controversial concept in the field of wage determination. Experience indicates, however, that difficulties are encountered if the union is presumed to act as the bargaining representative for its members only. Indeed, it is ordinarily not at all feasible to formulate one set of working conditions for union members and other terms for nonunion members.

A strong tendency exists for a company to accept the union as the bargaining representative for all employees, i.e., to concede exclusive bargaining rights, when it decides that "collective bargaining is here to stay." In acceding to so-called union-security demands, many a company has concluded that, under collective bargaining, the opportunity of the individual employee to participate in wage determination accrues primarily from union membership. This would seem to be essentially the case if the exclusive bargaining right of the union is recognized.

Wage Negotiations under Collective Bargaining

Under collective bargaining, therefore, basic decisions respecting wages and conditions of employment are a matter of joint management-union determination. In this process, wages are frequently balanced with "conditions" and a choice is often made between alternative changes in em-

ployment terms. For example, the union may withdraw a claim for a union shop in return for a significant increase in wages. A choice may be made between a general wage increase for all employees and old-age retirement benefits or health insurance which will actually be received by but a part of the work force.

As a result of their growing importance, these alternate choices constitute a new dimension in wage determination. The cost of the so-called fringes, or collateral wage provisions, cannot always be readily translated into a precise "wage-per-hour equivalent." Especially when company commitments are long-term ones—as in the case of many old-age retirement programs—their ultimate cost can at best only be approximated when they are instituted. Labor turnover, changes in the composition of the work force, the rate of interest earned on reserve funds, the rate of plant operation, and other variable factors will fashion the ultimate cost.

It has become increasingly difficult accurately to anticipate the economic consequences of a collectively bargained labor agreement. This is not only because of the so-called fringes. How will a seniority rule negotiated to regulate the promotion, layoff, and recall of employees affect the labor cost? Is it better for a multiplant company, whose employees are deeply concerned about the possible loss of jobs because of impending technological changes, to agree to interplant seniority or to severance pay? Will higher or lower costs result from a no-strike clause accompanied by a provision for the arbitration of all grievances? Easy answers are not available to these and many similar questions. The results will be determined by practice in the day-by-day operations of the future.

Appraising the economic consequences of a labor agreement becomes an even more elusive undertaking when tactical considerations are dominant. In the late 1930's, for example, relatively large wage increases were volunteered by many a management to their nonunionized employees in order to "show the workers they don't need a union." If the plant became organized anyway, as was often the case, a further wage increase was insisted upon by the union in order to complete its organizational program, i.e., to give tangible proof of the advantages of the union to the employees. In this type of situation wages were increased first in an effort to forestall unionization and then to assist in assuring continued employee support for the union.

Institutional necessities, as appraised by the union leaders, have also sometimes affected the character of wage adjustments. Because a wage settlement is subject to at least the simple majority-vote approval of those attending a ratification meeting and actually needs an even greater degree of employee acceptance to be really workable, a union leader may have to make certain that a settlement will be particularly acceptable to em-

ployees in those occupational groups which make up the bulk of the work force. The general across-the-board increases, so typical of wage settlements in recent years, were not unrelated to the need to gain the approval of the relatively large number of semiskilled and relatively unskilled employees. There have been times, however, when this kind of wage administration has resulted in the strenuous opposition of skilled employees.

Because of the interjection of conditioning factors like those mentioned, the terms of employment specified by joint agreement between a union and the employer are likely to be different than they would be under management-administered wage determination. The extent of the difference, however, depends upon the manner in which the management and the union undertake their joint administrative functions. In some situations the union is relatively passive and the administrative responsibilities devolve primarily upon management. In others the union asserts positive policies. There are few, if any, collective-bargaining arrangements without their own peculiar characteristics in these respects.

Agreement Making and Agreement Administration

If the economic consequences of the total agreement arrived at by collective bargaining are significantly indeterminable, how do employer and union representatives decide upon the relative acceptability or the relative unacceptability of particular conditions of employment? How is a balanced "package" of employment conditions evolved in collective bargaining?

In ways presently to be discussed, the immediate consequences of non-agreement are a persuasive force. No one can participate extensively in collective-bargaining negotiations, however, and remain unaware of the concern of those on each side of the bargaining table with the company's competitive position. An employer is reluctant to acquiesce in any important "improvement" of employment conditions which will not apply to his competitors. Nor will a union lightly assume the risk of unemployment which is accentuated when a company "is pushed too far out in front."

Interplant and intercompany comparisons of the various conditions of employment, and of changes in them, are well-nigh universal in collective bargaining. Clauses are carried over verbatim from one labor agreement to another, sometimes even when the transfer seems to be patently inappropriate. The formulation of wage agreements has strong intercompany characteristics. This is most notable in the consummation of master agreements in multiemployer bargaining, but it is also quite pronounced even in company-by-company bargaining.

There has been a marked tendency, then, for the terms of collectively

bargained settlements to be similar among competing concerns. A high degree of uniformity respecting the scope of collective bargaining, i.e., the subjects dealt with by joint negotiation, is the result. The application of a labor agreement, however, is generally the joint responsibility of local union representatives and local management representatives. Even though identical clauses may be in the labor agreements of two or more companies, wide variations in their application are the rule. The local understandings that are devised to give "meaning" to the clauses are an important aspect of collective bargaining.

Local understandings and practices have been known to negate entirely the terms of a formal labor agreement. A critical impasse developed during a negotiation some few years ago. Company representatives refused to agree to any seniority clause unless it provided for taking the ability as well as the seniority of employees into account in the making of promotions. The union finally acceded. A recent investigation showed that the principle gained by the employer was actually never effectuated. As a matter of plant practice, promotions were made on a "straight seniority" basis by foremen who either did not know how to combine ability and seniority factors in deciding upon promotions or were reluctant to create grievances and trouble with union representatives by deviating from a straight seniority approach.

The clauses of a labor agreement are not self-effectuating. An adequate comprehension of the wages and conditions of employment at various companies cannot be achieved, therefore, by a simple comparison of formal labor-agreement terms. How a particular term of a labor agreement works out depends upon the policies and practices followed in its effectuation. As an additional telling example, consider a standard clause providing simply for an equal division of overtime work among the employees in each department. The management of one company agreed with the contention of local union representatives that the clause should be "strictly" interpreted. Employees who were lowest in the amount of overtime worked were assigned to jobs for which overtime was scheduled without regard to previous experience. Another company, subject to the identical clause, convinced its employees and their local union representatives that men should be assigned to overtime work on the basis of management's appraisal of their ability to perform the jobs but that every effort would be made to ensure all men in the department an equal number of overtime hours during each six-month period. In one case the assignment of inexperienced men to overtime work increased unit labor costs by an estimated 25 per cent in addition to the premium pay. Production dropped precipitately and quality standards were adversely affected. In the other case, the regular rate of production and quality

standards were fully maintained during the overtime hours, and the requirement that overtime be shared entailed virtually no increase in labor costs. The respective competitive positions of the two companies were obviously affected to a marked extent by the effectuating policies which were agreed upon locally. In other words, the administrative decisions were a vital part of wage determination.

The cost and earnings effects of labor-agreement clauses are significantly dependent upon the way those clauses are applied. The acceptability or unacceptability of many proposals made in contract negotiations consequently depends—sometimes to a marked extent—upon the kind of union-management relationship which obtains. What operating policies and procedures can minimize the cost impact or maximize the wage possibilities of a proposed clause? What will be the incidence of a particular clause in view of the state of the labor relationship in a company or in a plant? These questions can be far more important than the way a clause is worded. It is often said unofficially that “the words of the labor agreement don’t mean nearly so much as the way the parties work and live together.”

The quality of the relations which have been developed between the company and its employees and between the company and the union representatives largely determines the way in which a collective-bargaining agreement operates in practice. The day-by-day administration of a labor agreement can be either orderly and reasonable or chaotic and vindictive. Sometimes the agreement is operated as a “living document.” During times of good business every clause of a collective agreement is rigorously “lived up to” and even extended in its scope through the manner of settling day-by-day problems. When business is bad, however, the agreement terms will be narrowly applied or even ignored. But such give-and-take flexibility is not an inherent characteristic of collective bargaining. The labor agreement is viewed in some cases as a rigid statement of the rights conceded to the union and as a very inflexible document. If a union is weak or its leadership ineffective, the employer may successfully assert extensive decision-making rights. On the other hand, the union may be able to take over a large share of the decision-making function. The labor agreement greatly influences but does not inexorably determine the conditions of employment.

Nature of Effectuation

Under collective bargaining, then, union representatives share with management, in various ways, the function of formulating and applying the employment terms. An employee can individually reject these terms—most summarily by quitting his job—but he cannot bargain directly for

terms at variance from those covered by the labor agreement.¹⁴ Employees occasionally combine their individual protests and engage in a wildcat strike, but both the union and management, i.e., the joint administrators of the conditions of employment, are responsible for taking action against such activities. It is significant, indeed, that the union is often held "responsible" for such "illegal" stoppages. Such a responsibility, it would seem, cannot be assigned unless the union is recognized as the exclusive bargaining representative of all employees.

The labor agreement is effectuated jointly by negotiations between local management and union representatives. The factor of consent thus assumes far-reaching implications. Local negotiations are vital.¹⁵ Precedent-making applications of the agreement terms are made and substance is given to rather bare clauses. Supplemental agreements are also negotiated locally to dispose of problems not "covered" by the terms of the formal labor agreement. A considerable decision-making latitude is thus possessed by those who are responsible for applying the wage agreement to the day-by-day operation of a business.

Because of the characteristics here noted, it is logical to view collective bargaining, particularly as developed in manufacturing industries, as a process of union-management administration of the conditions of employment. The quality of the decisions, for which union and management representatives are jointly responsible, is determined in large measure by the characteristics of the labor relationship which obtains. This is another way of saying that collective bargaining is a continuing process. So is the determination of wages and related conditions of employment.

Motivations for Union-Management Agreement

In the absence of collective bargaining, the specification and application of employment terms are essentially administrative functions of management. When collective bargaining is practiced, those terms and their application must be validated by an agreement between the employer and the union. What induces such an agreement?

In performing their joint administrative function, representatives of the union and of the management have to anticipate the reactions of the employees. Serious membership dissatisfaction with the terms of a settle-

¹⁴ Individual bargaining may be conducted regarding other terms of employment and, to a limited extent, may even be provided for in the agreement if, for example, minimum rates or conditions are specified.

¹⁵ Some grievance problems can be disposed of by the employee and his immediate supervisor. Questions arise, however, about the extent to which grievances can be so disposed of without "interpreting" the labor agreement in ways which are unacceptable to a majority of the employees or to the union leaders. Settlements of this kind may also establish precedents adverse to the employer's interest and result in so-called "whipsawing."

ment can lead either to loss of support for the union or in demands for greater militancy in the future. Nor can there be certainty about the willingness of the employees or of the employer to "take a strike" in support of particular demands.

Negotiating tactics and rituals have come into being to mask union weaknesses deriving from the employees' unwillingness to strike and management weaknesses resulting from the employer's inability to forego production. The discovery of those terms which will be really accepted in order to avoid a work stoppage, or to terminate one, is the fundamental task of negotiators.

In a real sense, the right to strike provides the employees with a more effective way of rejecting an employer offer than obtains in the absence of collective bargaining. Rejection does not entail a severance of employment. When a collective-bargaining impasse occurs, all employees in the bargaining unit temporarily lose their employment opportunities. They do not usually lose their jobs. Management may replace "economic strikers" or seek to operate during a strike with employees who choose to exercise an individual "right to work." Such courses of action, however, are no longer standard practices. Companies which have decided, as a matter of policy, to "make collective bargaining work" do not attempt to operate during a strike. The strike is conceived as an institutional incident concomitant to a particular process of wage determination. In some cases, the management and the union even consummate a "strike agreement." The company agrees not to undertake production activities until a labor agreement is reached. The union agrees that maintenance work and office activities can be conducted by the company without union interference.

It is usually worth some concessions on the part of both employer and employees to avoid the costs of a strike. However, the extent to which a union can influence the specification of employment terms—in acting jointly with management to perform the decision-making function—depends, in the last analysis, upon the willingness of the employees to "hit the bricks" if necessary to achieve a certain goal. This may or may not exert sufficient economic pressure upon the employer to bring about the desired recognition of union demands. Additional uncertainties about employee reactions are thus introduced by collective bargaining and make judgments about wages more difficult.

It is often said that a union cannot win a long strike. A short strike, on the other hand, may hold an altogether different prospect. When it seems virtually certain that any walkout will be brief, employees are strongly disposed to approve strike action. This propensity is particularly strong among employees who have long been working a full schedule with plenty of overtime. A brief spell of unemployment, even without

pay, is sometimes attractive—say at the start of a hunting season—and pressure can thereby be painlessly applied to induce concessions from the employer.

By and large, however, employees are averse to a strike. They are willing to "accept less" if that is necessary to get an agreement and "much less" if a protracted strike is the alternative. Depending largely upon this week's wages for this week's living, employees have inadequate reserves to carry them through a long period of no earning.¹⁶ There is always the risk, too, that a lengthy shutdown will result in an impairment of job opportunities if the company loses market outlets or discontinues operations.

Under some circumstances, strike action will be strongly supported by the union membership despite the prospect of a lengthy stoppage. This has happened most commonly when the employer position was widely interpreted as part of a move to "break the union." A protracted strike may then be knowingly undertaken by the employees to defend their right to collective bargaining as a "matter of principle." Such a strike may also be called, of course, to reject an employer proposal which is deemed to be entirely unreasonable and inequitable in terms of employee needs.

This brief attention to the consequences of a collective-bargaining impasse upon employees illustrates some of the potent restraints upon union negotiators. The consequences of a failure to agree can also be adverse to the employer. The seriousness with which an employer contemplates a possible interruption to production, however, depends upon the circumstances of each case. If inventories are high, or if production needs can be readily met by purchases from other companies, a company may face a shutdown with considerable equanimity. Moreover, profit margins may be so narrow that a company prefers a work stoppage, whatever the duration, to any increase in labor cost. The threat of a work stoppage, therefore, does not inevitably induce concessions. There are limits to the terms which the union can achieve.

It is, however, frequently "worth something" to an employer to avoid a strike. Even a brief stoppage of operations entails the added expense of closing down and starting up again. Nor can it be assumed that the terms of employment agreed upon to terminate a strike will be more favorable than a settlement negotiated without a work stoppage. Lack of an agreement can be quite serious to the employer if the flow of goods to customers is interrupted. Many an employer concession has been made solely to avoid the risk that outlets for goods, carefully nurtured over

¹⁶ On occasion, strike benefits have approximated regular earnings. Employees have then been disposed to continue a strike indefinitely—often to the financial and negotiating embarrassment of the union.

many years, might dry up because of a loss of customer confidence in the dependability of its customary source of supply. These and similar factors induce employer concessions in collective bargaining.

The weight of customer needs in wage negotiations is closely related to the employee unit for which a particular negotiation is conducted. Many multiplant companies seek to bargain separately and at different times, either with the same union or with different unions, for each plant at which similar products are manufactured. A threatened work stoppage at but one of these plants is less likely to impel employer concessions than a collective-bargaining impasse in negotiations covering all the plants. Unions have understandably sought company-wide bargaining under these circumstances to maximize their bargaining power. The situation is quite different if the operations of a multiplant company are integrated. Successive threats of localized stoppages at each plant would then constitute a series of negotiating crises because the entire operation would be affected.

Important variations in the substance of the labor agreement can arise, therefore, from differences in the employee unit represented in negotiations. There are other pointed illustrations of this circumstance. For example, when competition between several producers is spirited, a strike limited to one company means that competitors will continue to produce goods and thereby gain a temporary advantage from the selective work stoppage. Vast employer wage concessions have sometimes been made by a company anxious to avoid a selective stoppage. Such concessions then typically become a pattern for application to other companies. While the company selected for "breakthrough" negotiations is under strong pressure to make concessions, the union faces but a limited unemployment problem among its total membership if an impasse occurs. Working employees may even be assessed to support the strikers. Out of such situations has come a strong impulse among employers for multi-employer bargaining or for a uniform expiration date for the various agreements.

An employer who is unable to stand even a brief interruption of production without large losses has an urgent need for a labor agreement and is likely to make substantial concessions to get one. The union bargaining position is then strong because the employees are not likely to be seriously disadvantaged by a short strike. There are some cogent illustrations of this. Construction companies working against an imminent deadline for completing a building have made significant concessions to ensure the uninterrupted services of their employees and thereby avoid penalties for delays in performance. Concessions have also been exacted from an employer who is under strong compulsion to keep men on the job in order to get a ship unloaded before substantial demurrage charges

accrue. Despite worry over a poor financial position, some companies have nevertheless agreed to wage increases, adamantly insisted upon by a union, simply because a strike would have resulted in "sudden death," whereas uninterrupted production has given a chance—even an outside chance—for business survival. The coercive cases are fortunately not typical.¹⁷ They do illustrate how employment terms can be dependent upon the employer's urgent need to avoid the consequences of nonagreement. Many wage rates and conditions can only be explained in terms of this factor.

Consequences of Nonagreement

Balancing the consequences of nonagreement to employer and to employees is usually far less one-sided than in the cases just mentioned. The union will make concessions to avoid a work stoppage which would lack membership support. Management will make concessions that are, in its judgment, less expensive than the increased overhead costs of idle facilities, the loss of profitable sales, and the possible loss of customers. Within an area bounded by the points at which the costs of settlement are deemed to be excessive, union and company negotiators jointly formulate the terms of employment.

However, the limits are variable. If profits and employment opportunities are low, the negotiating area is narrow. On the other hand, if the customer demand for goods is so avid that increased wage costs can be "passed along" in product price, a stoppage of production tends to appear justifiable to a management only if necessary to forestall the most extreme union demands. Consumer interest in the substance of wage agreements run high when negotiations are conducted under such influences.¹⁸ Wage increases then connote price increases. The employee risk of losing employment opportunities and the employer's risk of losing sales and profits are both minimized.

In preparing for a wage negotiation, steps are sometimes taken by one or both sides to minimize their bargaining weaknesses. Prior to negotiations, the employer may accumulate inventories or lay plans to secure goods from "outside sources" if necessary. Wildcat strikes sometimes "spontaneously" occur, or the union authorizes grievance strikes, if they are not outlawed by a labor agreement, to prevent inventory accumulation. The union may create a "strike fund" to encourage employees to

¹⁷ They resemble union-administered wage determination more than collective bargaining.

¹⁸ This consumer interest has been most pronounced during wartime emergencies, when the customary restraints upon negotiators are virtually nonexistent. Under these conditions, intensive efforts to achieve so-called wage stabilization and price stabilization were made by the government on two occasions in the past fifteen years.

stand ready, if necessary, to endure a work stoppage. Such tactics are designed to limit the adverse consequences of nonagreement and thereby support negotiating claims.

Since collective bargaining is essentially a form of joint management-union administration, the labor leader has a key function to perform in wage determination. He shares with management the responsibility for formulating conditions of employment which will prove acceptable to the great majority of the employees. Some labor leaders have been able to initiate new demands and develop an employee willingness to strike for them in prosperous industries where employers have been most anxious to avoid work stoppages. Under less favorable economic circumstances, the union leader has to take defensive positions. He may have to convince a skeptical membership of the wisdom and necessity for taking far less than they have demanded as an "irreducible minimum." He may even have to gain membership acceptance of wage cuts proposed by the employer and agreed to by a union negotiating committee. While they are anxious to avoid a strike, the "rank and file" still tend to insist upon more favorable terms than can possibly be secured even as a strike settlement. It is a sobering experience to be with a union president at a membership meeting when he recommends employee approval of a wage agreement just consummated. His lot is not a happy one when the settlement provides few or no gains at a time when workers in other industries are securing significant improvements in working conditions.

Forces not encountered in any other process of wage determination thus have to be reconciled in collective bargaining. Tactical positioning and negotiating skills can account for sizable differences in wage settlements. Economic strength can be exaggerated and economic weakness can be masked.¹⁹ Tactical moves and persuasiveness in argument are important. Small wonder that most employers did not welcome collective bargaining with open arms. The extent to which many employers have successfully geared their labor relations policies to collective-bargaining requirements, however, is one of the outstanding achievements of American industry.

UNION-ADMINISTERED WAGE DETERMINATION

In the preceding discussion of collective bargaining, it was generally assumed that a kind of "equality of bargaining power" exists. In other

¹⁹ In the "now-it-can-be-told" sessions subsequent to a wage conference, a union negotiator will admit that, despite any impression to the contrary, he would have had to recede somewhat further from his "final" position rather than to strike for it. And the management negotiator will surmise that maybe "a penny or two" might have been forthcoming if that had been necessary to "settle the deal."

words, each party is assumed to be interested in give-and-take negotiations if for no other reason than to avoid the adverse consequences of nonagreement. As long as the negotiator on each side of the table possesses a significant economic power, it is likely that the fundamental needs of each party will be conserved in a settlement.

Whether or not collective bargaining works out in practice, as is assumed by its theory, and also whether or not consumer interests are adequately protected, have been subjects of controversy in recent years. Attention has been directed to those large and pervasive unions which have been able at times to bypass give-and-take negotiations. In some small-scale industries, for example, the "big" union may unilaterally specify standard conditions of employment which are then presented separately to each "little" employer for acceptance or rejection in their entirety. The employer does not participate in the formulation of employment terms and may have little influence in their application. This process is here termed union-administered wage determination.²⁰

Neither the union nor the employees have a great stake in any one of the negotiations conducted separately with one of a score or more of small employers in an industry. Only a small fraction of the industry's total job opportunities is involved. If negotiations break down, the relatively few strikers can ordinarily be placed by the union in other establishments or the strikers can be supported by the nonstriking union members. While the union is under no great pressure to complete an agreement, the small employer urgently needs one. He is unable to endure being singled out for a protracted stoppage.

The ability of the union to assume an administrative initiative in formulating employment terms does not necessarily mean that the resultant process of wage determination is unacceptable to the employers.²¹ By recognizing its responsibility to gain overwhelming approval of the employers to its programs, a union can achieve accepted leadership status in wage determination. Such a position among employers has been achieved, it is sometimes said, by the Amalgamated Clothing Workers and the International Ladies' Garment Workers' Union.

A comment made some years ago by a union representative about union-administered wage determination is pertinent. He said, in substance: "We price our labor just as a retailer prices his wares. Sales are made only at the price tag figure. Anyone may buy or refrain from buy-

²⁰ It can be compared to management-administered wage determination which involves the unilateral specification of terms by the employer and their proffer for acceptance or rejection in their entirety by each individual employee.

²¹ Neither must the possession of a superior bargaining power by the employer under management-administered wage determination result inevitably in the non-acceptability of this process to employees.

ing as he chooses." The analogy is not exact. Under union-administered wage determination, a fixed price may be effectively established for a total labor supply. The reasoning is similar, however, to the argument often used in support of management-administered wage determination. It is frequently said by a company representative: "We offer wages and conditions as good as are compatible with the needs of the company and with the provision of steady jobs to employees. If any employee can do better elsewhere, he is free to quit his job at any time."

Other recently cited illustrations of union-administered wage determination include the practices of some locals of the International Brotherhood of Teamsters and Helpers. Small operators of trucks frequently complain about the loss of their collective bargaining rights, i.e., their right to participate directly with the union in formulating the terms of employment applicable to their operations. The story told by these small operators goes something like this: "A union representative comes to see me. He deposits on the desk a so-called labor agreement, drawn up by the union, and says, 'Sign here or we'll strike you tomorrow morning.' I can't stand a strike, so I sign." Sometimes the employer complains that his employees were not even members of the union. He may also explain that, subsequent to signing, he had no alternative but to seek devious ways and means of securing relief from the particularly onerous terms of an agreement.

Multiemployer Bargaining

Certain sections of the Taft-Hartley Act were devised in an attempt to redress the employer's inequality of bargaining power in small-scale industries.²² Quite a different remedy has been sought by employers on their own initiative. In order to ensure direct participation with the union in formulating and applying the terms of employment, many associations for multiemployer collective bargaining have been created in small-scale industries. Representatives of the union and of the employers' association are responsible for the negotiations undertaken to consummate a master agreement applicable to all the companies. If negotiations fail, each employer is unable to operate, but so are his competitors. The consequence of nonagreement is minimized for the individual employer. At the same time the union is under greater pressure to meet employer terms, for only by an agreement can extensive unemployment among the union membership be avoided. To a large extent multiemployer bargaining has been developed by small employers in their search for an

²² A purpose of the Wagner Act, on the other hand, was to give employees a legal right to collective bargaining when they objected to their lack of participation in the establishment of employment conditions under management-administered wage determination.

"equality of bargaining power" in dealing with a relatively powerful union. Since a strike can cut completely the consumer supply of goods or services, multiemployer bargaining peculiarly involves the public interest and has been the subject of considerable governmental scrutiny.

It would be a mistake, however, to conclude that multiemployer bargaining has been developed only in small-scale industries. Some of the conditions of employment of such diverse occupational group as coal miners, railroad workers, clothing workers, building-trade employees, printing employees, and glassworkers are also fixed by multiemployer collective bargaining. An essentially similar process is also in effect in the steel industry. Separate agreements are consummated by the United Steelworkers of America and each of the major basic steel producers. These agreements expire, however, on the same dates. The basic terms of a key labor agreement consummated with one company are usually extended to all the steel companies. It is logical, therefore, to classify the wage-determination process in the steel industry as a form of multiemployer bargaining.

Employers frequently pool their economic power in order to participate more effectively with the union in formulating employment terms, rather than to forestall union-administered wage determination. They are doubtless concerned about the intolerable position each would be in if singled out by the union to negotiate under the threat of being shut down while competitors operate. Furthermore, a pattern-following company may lose much of its right to participate in the establishment of its own conditions of employment.

Disadvantages may also accrue to a union in bargaining with one concern at a time. Especially when concessions are not easily obtainable, the employees of one company are likely to be unenthusiastic about striking while fellow union members remain at work and subsequently receive any benefits gained by the localized strike. Augmented employer resistance may also arise about acceding to union proposals in the absence of definite assurance that they would also apply to competitors.²³ This factor has been of overriding importance to the unions in small-scale industries which have encouraged, or even assisted, the formation of employer associations to engage in industry-wide bargaining. Nor will a union see advantages in company-by-company bargaining if that entails, especially in times of poor business, the risk of establishing a pattern-making standard with the company least able and willing to be generous in its offers.

Union-administered wage determination is not commonly encountered, for multiemployer bargaining has usually been developed whenever a

²³ The so-called "most-favored-nation" clause is occasionally incorporated in a labor agreement. This provides that the labor agreement will be modified to conform to any more favorable terms subsequently negotiated by the union with a competitor.

union possesses a predominant economic power in negotiations conducted on a company-by-company basis. Although employers have thereby improved their position, they are not always satisfied with the results attained. There are drawbacks, moreover, in being subject to the standard terms of a master agreement, particularly if it is broad in scope and inflexibly applied. It is notable, however, that an estimated one-third of the 15 million employees under labor agreements are covered by multi-employer arrangements.

THE DECISION-MAKING ASPECTS OF WAGE DETERMINATION

Wage determination is private agreement making in which variously conceived and differently oriented objectives of employees and employers have to be accommodated and reconciled. Long-run economic considerations are among the factors which are taken into account. But many kinds of shorter-run necessities are also among the forces which condition a settlement. Subjective attitudes, adherence to particular principles, and institutional needs create some of the forces which have to be reconciled. Each wage negotiation thus has some unique characteristics. Each case involves a balancing of many forces. How to gain mutual consent is the crux of the matter.

Unless the wage-determination process permits a significant latitude for decision making, accommodation of differences by agreement between employees and employers can scarcely be expected. The adoption of a wage-determination system grounded upon private agreement making reflects a conviction that employers and employees do possess decision-making latitude. Because of the importance attributed to mutual consent, wage negotiation may be defined as the discovery of those terms at which, despite the differences between them, employers will make jobs available and employees will work in the immediate future.

Wage theory has been useful in emphasizing the role of market forces in directing wage decisions. The reality of this element is attested in the conduct of every wage negotiation. There are points at which the costs of a settlement are deemed so prohibitive that employees and employers prefer the consequences of nonagreement. The location of these critical points by employees and by employers, or by their representatives, is perhaps the most important phase of wage determination. In the making of these decisions, market forces are evaluated. Because future plans and future prospects are involved, the evaluations will differ in various cases. Moreover, many other considerations have to be taken into account in deciding the points at which the consequences of nonagreement will be assumed and in defining the negotiating area within which the essential agreement is achievable.

Within the negotiating area, the precise decision regarding wages is fashioned not only by the relative urgencies of the need for an agreement but also by the negotiating tactics and bargaining skills which are exercised. Administrative decisions have to be made; that is, a wage policy is formulated and a program for its effectuation and application is devised. For example, what basis of job evaluation should be utilized and should a wage increase be in the form of a general increase in cents per hour or in a uniform percentage increase? Decisions are made between alternative courses—for example, a general wage increase may be weighed against seniority rules or so-called fringes. These, too, are decisions of considerable import. The complex administrative aspects of wage determination have not been adequately analyzed in their relation to the broad wage-determination problem.

It is concluded that the processes of wage determination, i.e., the various kinds of agreement-making mechanisms which are utilized, have a major influence upon wages and related conditions of employment. Whether collective bargaining or management-administered wage determination is practiced, for instance, has an important bearing upon the location of the points at which the costs of an agreement are appraised as prohibitive. In other words, the agreement-making process influences the way in which the area of negotiation is defined. In their effects upon the consequences of nonagreement, the processes also influence the wage decision made within the negotiating area.

It is a notable fact that, while recognizing the limitations imposed upon them by market forces, employers and employees widely appraise the processes of wage determination as significant to labor costs and to employee earnings. This aspect of wage determination has constituted the most controversial of the employee-employer relations problems. While insisting that employers and employees have an obligation to work out their own employment terms, the government has become particularly interested in the agreement-making processes by which they do so. Not without cause have the Wagner Act and the Taft-Hartley Act been among the most controversial laws of this generation.

The search has been for a process, or for processes, of wage determination in which employees and employers, possessing an equality of bargaining power, will jointly participate in formulating and applying the terms of employment. In supporting collective bargaining, as well as its regulation, the government has sought to minimize unilateral or coercive wage decisions. It is believed in the United States that employment terms have a particular rightness and an incomparable usefulness when they are developed by an agreement-making process recognized as fair and equitable by both employees and employers. Problems concerning the processes for formulating and applying wage policies have been dis-

tinguished from the substantive terms of employment and their economic consequences, although they are not unrelated.

Collective bargaining, which is essentially a system of wage determination in which the employer shares administrative decision-making responsibilities with the union, has emerged as the process by which critical wage decisions are made.

In the absence of collective bargaining, particularly in the manufacturing industries, the employer promulgates and applies policies respecting the conditions of employment as part of the managerial function. The employees influence the terms of employment through their right individually to react to the conditions which the employer makes available. They do so in an indirect manner, however, and sometimes at considerable personal cost. An outright rejection means quitting the job. But there are some cases in which the employees find this process of wage determination acceptable. Many employees in many industries, however, were convinced that such a process was disadvantageous to them; that is, they believed they lacked an equality of bargaining power.

Since the passage of the Wagner Act, employees have had a legal right to select union representatives with whom the employer is required to share the administrative function of promulgating and applying agreement terms. A far-reaching change occurred in the determination of wages with the widespread adoption of collective bargaining. Under collective bargaining, unless and until a management-union agreement is consummated, the employer must reckon with the risks and the costs of a total work stoppage. So must the employees, who can, however, reject the employment terms offered by the employer without a permanent loss of their jobs.

The functions assigned to union and company negotiators are administrative. The employees retain the right individually to reject the terms available through the labor agreement just as they can reject the terms of employment when proffered by the employer alone. With collective bargaining, however, a potent force is added to wage determination—the consequences of nonagreement between the company and the union.

To ignore the far-reaching effect of collective bargaining upon the substance of wage determination is to ignore problems which are among the most complex in the labor-management relationship. One of the tasks of wage theory is to explain how the pressing long-run and short-run needs of employers and employees, economic and noneconomic, are reconciled through the collectively bargained agreement. The purpose of this chapter has been to initiate such a discussion.

P A R T T W O

*Structural Characteristics
and Changes*

5. *The Task of Contemporary Wage Theory*¹

An appraisal of the current state of wage theory requires historical perspective. A brief treatment of 150 years of wage discussions runs the dangers of superficiality and dogmatism; it has the advantage of compelling attention to fundamentals.

The task of wage theory has not always been the same. Indeed, the wage theory of any period can be interpreted as a product of: (1) the economic developments and quantities of the time and place, including the movement of wage rates; (2) the wage-setting institutions; (3) the dominant economic theory and intellectual fashions of the period; and (4) the policy issues of the day. An explanation of the wage discussions of the past must seek to recreate at least these features of the context.

THE HERITAGE OF WAGE THEORY

A review of the history of wage theory suggests a division into three broad periods:² the first is the classical period, ending around 1870, in which the wage fund symbolized wage thinking; the second period may be dated to end with the Great Depression of 1929 and is characterized by marginal productivity; the third period is the contemporary one.

The Classical Period

The classical period was, as Schumpeter says, "the specifically English period in the history of our science."³ The population increased very rapidly, primarily as a consequence of a decrease in the death rate. The extent and the nature of the increase were not accurately known at the time. Real wages showed no marked trend for the period, although it

¹ An earlier version of this chapter appears in John T. Dunlop (ed.), *The Theory of Wage Determination*, Papers of a Conference Held by the International Economic Association (London: St. Martin's, 1957).

² For a discussion of the problem of dating periods, see Joseph A. Schumpeter, *History of Economic Analysis* (New York: Oxford, 1954), pp. 379-380.

³ *Ibid.*, p. 382.

was evident to a contemporary that some groups of workers (for example, the classic case of hand weavers) suffered marked deterioration in their position as a result of mechanization. The best evidence seems to suggest an over-all small decline on the average in real wages during the period of price increases associated with the Napoleonic Wars and a gradual rise recouping these losses thereafter.⁴ By mid-century there had appeared only small real-wage benefits and some spectacular new social costs. The marked differences in real wages among countries, despite the absence of accurate statistics, caused frequent comment; real wages were higher in the New World and generally lower on the Continent and much lower in Asia. The agricultural sector of the economy, even in England, employed the greatest number of workers. This sector was seen to be characterized by the law of diminishing returns. The wage-fund apparatus seemed congenial to these objective facts, as it still does to the broad features of many underdeveloped countries.

Labor unions were not regarded as significant wage-setting institutions of the period. Indeed, the combination laws were not repealed until 1824. While there was some discussion of the impact of "combination" on wages, the problem does not appear to have been urgent. The administration of the poor laws prevented their being used as a minimum support for cash wages.

The central problem of classical theory was that of distribution—the division of the national dividend among the recipients of rents, profits, and wages. As Ricardo stated, "To determine the laws which regulate this distribution, is the principal problem in Political Economy."⁵ If the central problem of economics was distribution, the keystone in the theoretical system was the determination of wages. The theory of wages was at the very heart of economics.

The policy issues of the period that concerned wage determination and labor policy were whether the combination laws against trade unions should be eliminated, whether the poor laws should provide only maintenance in the workhouse or outright assistance, the effects of the introduction of machinery on the working class, and the corn law controversy.⁶ In the later years of this period, the question of the effects of unions received more attention.

⁴ See T. S. Ashton, *The Industrial Revolution, 1760-1830* (New York: Oxford, 1948); Arthur D. Gayer, W. W. Rostow, and Anna Jacobson Schwartz, *The Growth and Fluctuation of the British Economy, 1790-1850*, vol. 2 (New York: Oxford, 1953), pp. 657-658; and F. A. Hayek (ed.), *Capitalism and the Historians*, (Chicago: University of Chicago Press, 1954).

⁵ See David Ricardo, "Preface," in Piero Sraffa (ed.), *The Works and Correspondence of David Ricardo*, vol. 1, Principles (New York: Cambridge, 1951), p. xlviii.

⁶ See Lionel Robbins, *The Theory of Economic Policy in English Classical Political Economy* (New York: St. Martin's, 1953).

The theory of wages of the period was developed as follows:⁷ The use of land according to the theory of rent is not a factor in the pricing process, and the distribution problem becomes that of the division between capital and labor. The amount of capital used is assumed to be proportional to the amount of labor; accordingly, prices of products are proportional to the amount of labor employed in producing them. Capital ceases to be regarded as an independent factor of production. Then all types and grades of labor are reduced to multiples of "normal labor," with the result that the analysis dispenses with relative wages and concerns a single wage rate. Wage determination by these steps becomes the key problem in price determination and distribution.

In the short run, the population is a given factor and uniquely determines the labor supply. The wage fund is the amount of wage goods, the means of subsistence, or the variable capital which capitalists have decided to spend on labor. If the wage rate is fixed in the market above the rate indicated by the wage fund and the population, then unemployment will result. If the wage rate is fixed below this average rate, then there will be unfulfilled demand. In the long run, the wage fund will change as savings change in the community. Population will vary in accordance with whether wages are above or below the subsistence level, as explained in the strict Malthusian doctrine. In the long run, through the variation in population, wages tend to be fixed at the minimum subsistence level. The theory of wages briefly outlined was "an analytical tool that, within the analytical structure of its time, was distinctly useful . . ."⁸

The long-run wage-fund doctrine in its strict formulation requires that the minimum of subsistence be given by physical necessity outside the system. The theory frequently recognized, however, that it is a customary or a social standard to which population adjusts wages and that in the long run, therefore, wages cease to be "determined" within an economic system but come to be given outside the economic system by social convention. Wage rates in the long run were taken as a datum; only a short-run wage theory logically remained. In this case supply (population) was given and wages were determined by variations in the demand (wage fund). For a variety of reasons later economists were to agree that the wage fund is not given in the short run as a unique sum. When confronted with the problems of a later day, the wage-fund theory was abandoned.

In this brief sketch, it is to be noted that the theory of wages started

⁷ See T. W. Hutchison, *A Review of Economic Doctrines, 1870-1929* (New York: Oxford, 1953), pp. 1-31; and Gustav Cassel, *The Theory of Social Economy*, trans. by S. L. Barron (New York: Harcourt, Brace, 1932), pp. 298-370.

⁸ Schumpeter, *op. cit.*, p. 669.

at the core of the central theoretical problems of the classical system. There was little or no concern with the structure of wage rates, since the theoretical system was developed around a single rate. The social or customary minimum tended to remove the determination of wages from the theoretical system and to take the wage as a datum given outside the system. The theory was found wanting on the supply side. Finally, the wage-fund theory was abandoned as inadequate to the problems of a new day, even before an alternative theory was developed; it was not abandoned in the face of a competitor. This history of the wage-fund doctrine was to be substantially repeated almost sixty years later by the marginal-productivity theory of wages.

Marginal-productivity Distribution Theory

The second period of wage theorizing is not concentrated in a single country; the ideas of marginal productivity sprang up quite widely—in England, Austria, the United States, Sweden, Italy, and Switzerland.⁹ Indeed, these widespread and somewhat independent developments suggest that similar environmental conditions, intellectual and practical, were at work.

Economic theory, which included wage theory as an integral part, was to be rebuilt after 1870 by specialists who were university economists. The earlier writings had been largely the product of practitioners and of political and moral philosophers. The principal economic developments of the period which were to be most influential in conditioning reflection on wage problems were as follows: The birth rates of Western Europe began to decline under urban conditions, and the population problem ceased to be of overwhelming significance. More accurate census data helped to place the population movements in perspective. It became increasingly evident that industrialization was creating an increase in real wages and living standards, so that the pessimism of the early part of the century gave way to optimism. New marvels of the urban industrial age were everywhere apparent.

It is true that the industrial age created pressing “social questions”: factory conditions, working women and children, and slums. But along with these was an intellectual problem that could not be escaped: How were the benefits of the new era to be shared? Moreover, the strong challenge of the Marxian analysis of capitalism sharply highlighted this problem.

In this period, the labor union emerged as a significant and continuing institution. In England, by the sixties there were strong unions whose impact on wages was a challenging intellectual and policy problem. In

⁹See George J. Stigler, *Production and Distribution Theories* (New York: Macmillan, 1941); and T. W. Hutchison, *op. cit.*

the nineties, there was an outburst of unionism which made the same problem appear more urgent as collective bargaining became more widespread. Each outburst of union growth has brought a renewed interest in this theoretical question. The contemporary United States is no exception, where wage discussions are again interpreting the effects of the rapid increase in union membership from 1933 to 1945.

It was also in the second period that the government in various countries began to affect the wage bargain in some respects, by factory legislation regulating hours and, later, wages—particularly for women and children—and, still later, wages of all employees in some “sweated trades.”

The central theoretical problem of economics was still distribution. In the words of John Bates Clark: “For practical men, and hence for students, supreme importance attaches to one economic problem—that of the distribution of wealth among different claimants.”¹⁰ It was no longer a problem of distribution among social classes, rather distribution of a rising national product among competing and substitutable factors of production.

In the case of some writers, particularly Clark, the distribution problem carried strong moral overtones. The following quotation is instructive:¹¹

The welfare of the laboring classes depends on whether they get much or little; but their attitude toward other classes—and therefore, the stability of the social state—depends chiefly on the question, whether the amount that they get, be it large or small, is what they produce. If they create a small amount of wealth and get the whole of it, they may not seek to revolutionize society; but if it were to appear that they produce an ample amount and get only a part of it, many of them would become revolutionists, and all would have the right to do so. The indictment that hangs over society is that of “exploiting labor.”

The period sought a theory of distribution that would go beyond residuals. Knight has said of the classical period that, apart from rent, “the only sense in which the treatment gets beyond the circle of each claimant getting what the other does not get lies in the idea that labor gets what it has to have.” The new professional economists, many with some mathematical training, were interested in a more elegant and more formal solution to the problem of distribution.

The policy issues of the day that seem to have shaped wage discussions most significantly were as follows: What are the effects of union action, including strikes, upon the distribution of the national product? Can the share of labor be increased by these actions?¹² Can the existing social

¹⁰ *The Distribution of Wealth: A Theory of Wages, Interests and Profits* (New York: Macmillan, 1900), p. 1. The quotation is the first sentence of the book.

¹¹ *Ibid.*, p. 4.

¹² See, for example, Eugen von Boehm-Bawerk, “Macht oder Ökonomisches

order and the functional distribution of income be defended against the Marxist charge of exploitation?

In this setting the "marginal productivity" theory of wages developed. Historically, the central notion of marginal productivity had been stated earlier than this period—for instance, by Longfield and Thünen. But the idea gained hold when the concept of marginal "utility" had been advanced to explain the behavior of consumers and the prices of final products. Marginal-productivity theory emerges as an extension of marginal-utility analysis to the problem of the pricing of the factors, an "imputation" of value to the factors from the price of finished products. The firm combines and "coordinates" factors in order to maximize profit, just as the consumer varies the combination of expenditures to maximize utility.

Maximization of profits by the firm requires, simply as a logical deduction, that as an equilibrium condition the price of each factor of production be proportional to marginal physical productivity and that the marginal value productivity of each factor be equal to its price.¹³ This is true of any factor of production, including labor services, and holds regardless of the character of competition.

But the prices of factors are not "determined" by marginal productivity. Marginal productivity establishes demand schedules, but factor pricing also requires supply schedules. The original formulators of marginal-productivity distribution theory regarded the supply of labor as set by a "pain-cost explanation." In other words, the amount of labor services offered would be set at the point where the marginal utility of the wage equaled the marginal disutility of labor. Later developments recast the supply function in terms of individual choices between income and leisure at varying wage rates. It was assumed that the operation of the labor market would determine a wage rate and the actual quantities of labor services sold and purchased.

The theory of wages just sketched probably never enjoyed the same measure of acceptance as the wage-fund doctrine. Strictly speaking, marginal productivity is not a theory of wages, but only a statement of the demand side. From the outset, the supply schedule has been a weak tool. The element of convention has been recognized as strong in setting

Gesetz," *Zeitschrift für Volkswirtschaft, Sozialpolitik und Verwaltung* (December, 1914), pp. 205-271, trans. by J. R. Mez, mimeographed (1931); A. C. Pigou, *Principles and Methods of Industrial Peace*, (New York: St. Martin's, 1905); and Alfred Marshall, *Elements of Economics of Industry*, (New York: St. Martin's, 1893), pp. 374-411. This last chapter is an analysis of trade unions.'

¹³ See Paul A. Samuelson, *Foundations of Economic Analysis* (Cambridge, Mass.: Harvard University Press, 1947), pp. 57-89.

the length of the work week and in decisions whether and where to work. A reservation price dictated by custom or trade union action limited the pure theory. Inquiry into the actual operation of the labor market suggested many imperfections. In time, many writers came close to the position that the wage rate was determined outside the system, and marginal productivity indicated how much labor would be employed at that wage. As in the classical period, wage determination came to be pushed outside the system of formal theory.

Expanding industrialization creates an increasing number of occupations and jobs. A great deal of interest in the world of affairs is centered on the structure of wage rates or the differentials among these jobs in various firms, industries, and regions. Marginal-productivity theory, with some notable exceptions, has not been widely applied to the complexities of wage structures.

There was another complication to marginal productivity. The classical wage scheme was clearly designed for the total system. While the distinction was not often explicitly made for the particular firm, the wage fund could be applied by a specific company and, with a single grade of labor and a perfect labor market, the theory as a whole could be used in the particular case. The marginal-productivity writers ordinarily fail to make this distinction. They do not distinguish in their system between particular wages and the general wage level. In a model, with Say's law and full employment, the distinction is perhaps not crucial. But where changes in the price of labor as a whole may have significant income effects, particular equilibrium is inadequate to a theory of the general level of wages. T. W. Hutchison has said:¹⁴

But nothing replaced or supplemented the analysis of the Wages Fund doctrine, or that of its critics. Not merely did the doctrine itself die away, but the whole problem it sought to deal with was in the main shelved or abandoned. The marginal productivity analysis of distribution which emerged a quarter of a century later, was an explanation of relative wages. . . .

The marginal-productivity analysis of distribution remains at the heart of distribution theory, but the theory of wage-rate determination developed at the same time has involved a retreat to a position largely outside of economic theory. True, "wages tend to measure the marginal productivity of labor,"¹⁵ but this is not a theory of wage-rate determination. It explains neither particular wages nor the general wage level. The supply side has again substantially collapsed. Like the wage-fund doctrine before it, marginal productivity, including historically related labor-

¹⁴ *Op. cit.*, pp. 27, 319. Also see Schumpeter, *op. cit.*, p. 942.

¹⁵ Dennis H. Robertson, "Wage Grumbles," in *Readings in the Theory of Income Distribution* (New York: Blakiston, 1946), pp. 221-236.

supply notions, was not displaced by an alternative or competing theory. Its popularity has declined because it has proved unsatisfactory as a tool of analysis.

The Contemporary Setting

The contemporary discussion of wage theory likewise needs to be placed in the perspective of economic developments, say since the Great Depression.¹⁶ The chronic depression in England during the twenties and the worldwide unemployment of the early thirties compelled attention to the question: To what extent is unemployment to be attributed to wage policy? The major economic literature since the Great Depression has very substantially been concerned with models of the total system which attempt to provide more adequate explanations for unemployment and fluctuation in the total system. In 1932, in his presidential address before the Royal Economic Society, Edwin Cannan said: "But general unemployment is in reality to be explained almost in the same way as particular unemployment. . . . General unemployment appears when asking too much is a general phenomenon."¹⁷ It is a measure of the change in thinking since 1932, wrought by events and by further analysis, that wages and employment for the total system are thought to be interrelated in a vastly more complex manner than can be fruitfully portrayed in a Marshallian demand curve.

The period is characterized by great expansion in organized statistical and quantitative data relevant to economic problems and particularly to measures for the total economy. Even though each generation has noted the same development, the improvements in the quantity and quality of economic data in the current period are truly outstanding. Wage-rate and labor-market data are no exception. Moreover, many studies have been made of the operation of labor organizations, managements, and the collective-bargaining process.¹⁸ Theoretical analysis of wage setting can be tested against a vast body of empirical material as never before.

Indeed, one of the consequences of improved and enlarged data is that we become less satisfied with existing theoretical systems. The ever-enlarging data challenge the theory at new points and impose new strains on theory. Part of the current dissatisfaction with wage theory arises from ever-increasing factual knowledge of wage rates and the labor

¹⁶ See Lloyd G. Reynolds, "Economics of Labor," in Howard S. Ellis (ed.), *A Survey of Contemporary Economics* (New York: Blakiston, 1948), pp. 255-287.

¹⁷ "The Demand for Labour," *Economic Journal*, vol. 42 (1932), p. 367.

¹⁸ Clinton S. Golden and Virginia D. Parker (eds.), *Causes of Industrial Peace under Collective Bargaining* (New York: Harper, 1955); Alan Flanders and H. A. Clegg (eds.), *The System of Industrial Relations in Great Britain* (Oxford: Blackwell, 1954).

market.¹⁹ The new danger of the period is that we shall be so weighted down and intimidated by unique facts and the complexity of data that we shall fail to discern boldly general relationships.

The passage of time has afforded a better opportunity to appraise the potentialities of modern industrialization and its consequence for living standards and wage rates. In the period from 1896 to 1917, there was apparently a plateau in real hourly earnings in many countries. Current perspective indicates that real wages have been increasing substantially over time. Data for the United States suggest that real wages are actually rising at an increasing rate; their rate of increase since 1914 is materially above the rates for any extended portion of the nineteenth century.²⁰

In regard to wage-setting institutions, the contemporary period has seen collective bargaining become the method by which the most significant wage rates are set in Western countries. Unions can no longer be treated as an aberration of the usual market determination, and it is clear that collective bargaining must be taken as the normal case. Moreover, governmental action has impinged on wage-setting forces very generally. There are minimum-wage laws. In many European countries, important components of compensation, such as vacations with pay, various insurance schemes, and family allowances are fixed by government. In France and Italy such components amount to 30 and 40 per cent, respectively, of total labor costs. In a number of Western countries, for varying periods, political parties created or supported by unions, have been the responsible government. Wage-setting arrangements have been made more complex by these governmental relations.

In contemporary economic analyses a rather sharp distinction has been drawn between total-system problems and particular equilibrium analysis. In wage discussions this is reflected in the separate consideration given the general wage level and the wage structure. One of the tasks of analysis is to relate the two areas of theory more adequately.

In setting the intellectual context of contemporary wage discussion, it should be noted that there has developed a degree of specialization, at least in the United States, in which general economic model builders are not familiar with labor-market developments and in which labor-market specialists are inadequately familiar with central theoretical developments.²¹ It should also be reported that labor-market or wage specialists

¹⁹ See Gladys L. Palmer, *Labor Mobility in Six Cities: A Report on the Survey of Patterns and Factors in Labor Mobility, 1940-1950* (New York: Social Science Research Council, 1954).

²⁰ See Leo Wolman, "Wages in the United States since 1914," *Proceedings, Industrial Relations Research Association* (1953), pp. 40-46.

²¹ See, for example, the reception and reviews of David McCord Wright (ed.), *The Impact of the Union* (New York: Harcourt, Brace, 1951).

have all been most uncomfortable with "received" theory. There have been no unabashed defenders in this group. This dissatisfaction arises in part from expecting too much from any theoretical analysis, in part from a lack of application of the most advanced theoretical analysis, particularly dealing with the total system, and partly from the inadequacy of the theoretical analysis itself.

The preceding brief review suggests that the developments in wage theory have been related to the economic events of the period, to wage-setting institutions, and to the central body of analytical economics. In the contemporary period, there is need for the formulation of a body of wage analysis more suitable to labor-market developments and to wage-setting institutions of the day, drawing upon the central body of economic analysis.

Questions to Be Answered

A theory of wages must first identify the questions it seeks to answer or the particular features of the economy and labor market it desires to explain. The classical period was concerned with these questions: How is the national product divided between the three social classes? To what level do wages normally or naturally tend? In the period of marginal-productivity discussion, these questions come to the fore: How is the product distributed between the factors that produce it? Is the product exactly exhausted by this distribution? Can there be widespread exploitation of labor? How is the rising product of industry distributed?

In the main, these questions are of little contemporary interest; wage discussions are now much more concerned with other problems: What determines the general level of real-wage rates? What determines the money level? What determines the structure of wage rates among firms, industries, and occupations? The "share" question is discussed in specialized articles, but it is not the core of "wage" theory.

It should not be presumed that there are no common threads in the wage discussions of these periods. Indeed, there are. But the common questions arise on a less grand scale: What are the effects of machinery on wages? What impact do unions have on wages? Are wages determined relatively more by economic law or by power and political action? Do higher wages lead to higher efficiency?²² These

²² Consider this illustration: "The strong pressure of unions for higher wages, however, has undoubtedly helped to raise the standard of living because this pressure has forced management to work harder to keep down labor costs and has thereby accelerated technological progress." Sumner H. Slichter, *What's Ahead for American Business* (Boston: Little, Brown, 1951), p. 13. Compare this statement with a long chain of precedents: J. W. F. Rowe, *Wages in Practice and Theory* (London: Routledge, 1928), pp. 215-225; H. L. Moore, *Laws of Wages; An Essay in Statistical*

questions are not new; they run through the whole period of wage discussion.

SUGGESTIONS TOWARD A REFORMULATION OF WAGE THEORY

The preceding brief review of the heritage of wage discussions provides a setting in which to make a few suggestions on the future course of speculation on wages. Although the topic requires a book, the sections that follow will sketch in a few major concepts.

Preliminary Observations

All wage theory is in a sense demand-and-supply analysis. A wage is a price, and the wage structure is a subsystem of prices. Prices and price systems are fruitfully to be interpreted in terms of demand and supply. There is no special or peculiar "demand-and-supply" theory of wages.

The notion of a "political" theory of wages involves confusion. In the absence of unions, firms or groups of managements make wage decisions; and under conditions of collective bargaining, the parties reach agreement on wage scales. It is indeed appropriate to study the processes, procedures, and influences which determine decisions in these organizations and the techniques which they employ in agreement making. Both parties ordinarily have some discretion, particularly in the short run and depending on whether they are wage leaders or wage followers, concerning the amount and the form of the wage settlement. But it does not advance understanding of decision making in organizations to label the process as either "political" or "economic." The decision-making process internal to a management organization or a union is an appropriate area of research, but this subject does not preempt the theory of wages. Moreover, a large part of the institutional study of decisions should seek to show the impact of external events, including market developments, on internal decisions.

It has been a problem in wage discussion from the earliest years to define the independent effect of a strike, of power, or of political action upon wage determination.²³ It is not a new issue. It is the old question which is revived under the guise of a "political" theory of

Economics (New York: Macmillan, 1911), p. 189. The history of this idea is interrelated with the effects of a wage change on the efficiency of labor. Refer to Marshall, *op. cit.*, pp. 408-410; Francis A. Walker, *The Wages Question* (New York: Holt, 1886), pp. 387-388, and many earlier writers.

²³ See, for instance, Eugen von Boehm-Bawerk, *op. cit.*: "Nor could any sensible person deny that the existence of labor organizations with their weapon of strikes has been of pronounced influence on the fixation of wages of labor. . . . The great problem, not adequately settled so far, is to determine the exact extent and nature of the influence of both factors [“purely economic” and “social” categories]. . . ."

wages.²⁴ The appropriate question is still what differences, if any, do unions make in wage determination? Are the net effects large or small, in the long run as well as the short run? Are the effects different for various components of compensation and on different types of wage rates in the total wage structure?

Wage theory has tended historically to disintegrate on the supply side. As has been noted, in the course of refinement of the wage-fund theory and the supply function associated with marginal productivity, the supply function tended to be pushed outside the analytical system. The amount of labor supplied and the wage rate came to be determined by social custom or institutional considerations. For purposes of economic analysis the wage rate came to be regarded as a given. In a sense the pivotal task of wage theory is to formulate an acceptable theory on the supply side.

It is not satisfactory to treat wage determination in terms of a single rate. In the past there have been various devices to reduce wage setting to the problem of a single rate. A single unskilled or common-labor rate has been envisaged into which all skilled labor may be translated as consisting of so many "units" of unskilled labor. This classical convention was followed by both Marx and Keynes. A single wage rate, out of the whole structure, is regarded as an index or barometer for all other rates. But all wage rates do not move together, either in the short run or in the long run. The wage structure is not rigid throughout a period of time. Moreover, the determination of the wage level and the determination of wage structure are closely interrelated.

Wage theory must operate with the concept of *wage structure*—the complex of rates within firms differentiated by occupation and employee and the complex of interfirm rate structures. The concept of wage structure, for the purpose of the present analysis, is a central concept; the analysis of wage determination will be approached through the wage structure. Indeed, the task of analyzing wage determination is not the problem of setting a single rate but rather the problem of setting and variation in the whole structure or complex of rates. While the general level of wage rates can be thought of as changing apart from variations in structure, they are not actually dissociated. Changes in the wage level, associated with changes in output levels in the system, are necessarily associated with changes in wage structure. The interrelation between the wage level and the wage structure is itself a major area of inquiry.

The wage structure within a bargaining unit, plant, firm, association, or other grouping in which wage differentials are set by the same authorities must be distinguished from the complex of interfirm or group

²⁴ See Arthur M. Ross, *Trade Union Wage Policy* (Berkeley: University of California Press, 1948).

structures each set by different agencies. From the point of view of the individual decision makers, the first wage structure is internal while the second is external. One of the central problems of wage analysis is to indicate the interrelations between the internal and external wage structure.

The analysis that follows utilizes two concepts which require explanation: *job clusters* and *wage contours*.

Job Clusters and Wage Contours

A job cluster is defined as a stable group of job classifications or work assignments within a firm (wage-determining unit) which are so linked together by (1) technology, (2) the administrative organization of the production process, including policies of transfer, layoff and promotion, or (3) social custom that they have common wage-making characteristics.²⁵ In an industrial plant which may have literally thousands of jobs, each wage rate is not equally related and dependent upon all other wage rates. The internal wage structure, the complex of differentials, is not rigidly fixed for all time. Neither do relative rates change in random relation to each other. The internal wage-rate structure is to be envisaged as divided into groups of jobs or job clusters. The wage rates for the operations and jobs within a cluster are more closely related in their wage movements and wage-making forces than are rates outside the cluster.

Thus a tool room in a plant would ordinarily constitute a job cluster. The training and skill of the machinists who operate the various specialized machines—lathes, shapers, cutters, and so on—are similar. Their work is closely interrelated in the productive process. They may work together apart from others. They may have a common promotion, transfer, and layoff pattern. The wage rates within the tool room are more closely related to each other than they are to the rates for other employees in the power plant—on production lines, in the maintenance crew, in the office, or in the sales force. The wage structure of the ordinary plant is to be envisaged as comprised of a limited number of such job clusters, each with a number of rates.

From the analytical point of view these job clusters are given in the short period by the technology, the managerial and administrative organization of the wage-determining unit, and the social customs of the work community. Thus the employees on a furnace or a mill and the crew of a

²⁵ See Chapter 6 by E. Robert Livernash for a further development of the concept of job clusters and for much rich illustrative material. This concept has been developed in joint discussion and in common or similar administrative experience over the years.

train or plane may constitute a job cluster (technology); so also may employees in a department (administrative organization), or the sales-girls in a department store or the stenographers in an office (social custom). These factors may reinforce each other in describing a job cluster, as in the instance of technological and administrative considerations defining the cluster of trucking rates in a department store or plant. In turn, certain job clusters may be more closely related to some rather than to other clusters. In this sense, clerical rates as a whole may be more closely related to other clerical rates than to managerial or factory rates. Wage theory, for the short period, does not seek to explain the configuration of particular job clusters. For the longer period, it is essential to show that the scope of a job cluster within a wage-rate structure may be expanded, restricted, or divided as a consequence of changes in the technology, administrative organization, or social customs, including union organization, in the plant.

The job cluster can be examined in more detail. Ordinarily a job cluster will contain a key rate, or in some cases several. The cluster consists of the key rate(s) and a group of associated rates. The key rate may be the highest paid, or the rate paid at the top step in a promotion ladder, or the rate paid for a job at which a large number of workers are employed. The rates set for a one-man streetcar or bus operator, a reporter at the top automatic step of advancement, a pilot of an airplane, a tool-maker, and a meat boner are illustrations of key rates. There may be several key rates in a single cluster and a number of clusters in one internal rate structure. Typically, the key-rate jobs show relatively less change in job content over a period of time and are often relatively more standardized among firms than are other jobs. The key rates are those which managements and unions typically have in mind and explicitly discuss in considering the internal wage structure.

The smallest building block in the wage structure is thus the job cluster comprised of a key rate, or several such rates in some cases, and a group of associated rates. The internal wage structure of the plant (wage-determining unit) consists of a number of these job clusters. Such is the anatomy of the internal wage structure.

The forces which determine the wage rates for the key jobs and the rates for associated jobs in a cluster are not confined within a firm. The "exterior" plays a very important role. The "exterior" consists of labor-market influences, including union and government wage policies, and forces in the markets for products. The "exterior" cannot operate directly on a thousand slightly differentiated jobs. The key rates play a decisive role in relating the exterior to the internal rate structure. Indeed, the key rates are affected by the exterior, and adjustments in these rates are transmitted to other rates within the plant, cluster by cluster.

Nature of Wage Contours

A wage contour is defined as a stable group of wage-determining units (bargaining units, plants or firms) which are so linked together by (1) similarity of product markets, (2) resort to similar sources for a labor force, or (3) common labor-market organization (custom) that they have common wage-making characteristics. The wage rates for particular occupations in a particular firm are not ordinarily independent of all other wage rates; they are more closely related to the wage rates of some firms than to others. A contour for particular occupations is to be defined in terms of both the product market and the labor market. A contour thus has three dimensions: (1) particular occupations or job clusters, (2) a sector of industry, and (3) a geographical location. The firms which comprise a contour constitute a particular product market; also, they may either be located in one labor market or scattered throughout a region or the country as a whole. The level of wage rates by occupations within the contour need not be equal, but changes in compensation are highly interrelated.

In the United States the basic steel contour for production jobs consists of the producers of basic steel products scattered in various communities throughout the country. The wage rates of the jobs in these firms—in their blast furnaces, steel works, and rolling mill operations—are closely interrelated. Some other operations of the same companies, such as cement mills or shipping, are typically excluded from the basic steel contour. While there are a variety of submarkets, and each basic steel producer may have specialized features resulting from its particular product market or from the particular locality in which it hires labor, nonetheless the basic steel wage contour is sharply defined and clearly distinguishable from others.

The meat-packing and rubber contours are further illustrations. But a contour is not to be identified with an industry. Many broad industrial groups of firms have such specialized submarkets that they are decisive for wage setting. In the paper industry, for example, kraft paper, newsprint, tissue paper, quality writing paper, and bank-note paper firms have such distinctive products markets, with some distinctive production and labor-cost problems, that they have separate wage-setting processes.

A contour should not be regarded as necessarily having a sharp boundary line. Some firms have such unique product markets that they fall among several wage contours. Specialized markets and competitive conditions may result in some firms "at the edge of the contour" being only slightly influenced by wage developments "at the center." The meat-packing pattern may spread from the major packers to other packing

plants, then to some cutting plants for the hotel and restaurant trade, but not necessarily to all sausage makers. Indeed, in some localities such small plants may even constitute a separate wage contour.

Some major contours may constitute limits to the wage settlements within less significant wage-setting groups of firms. Thus, the flat-glass contour has been influenced both by the basic steel and the automobile contours. These larger patterns have provided limits conditioning the amount and the form of the flat-glass settlements.

A contour may be confined to a locality in its labor-market dimension. Thus newspapers in New York City constitute a contour for wage-setting purposes. The rates for various occupations in one newspaper are closely related to those in other newspapers in that city. Specialized product markets, for other types of printing or publishing, are a part of still other wage contours. In some localities wages in one group of firms may be so dominant as to spread that contour to firms which would ordinarily be in a different contour. The roles played by auto rates in Detroit, steel rates in Pittsburgh, and, traditionally, textile rates in Fall River are illustrative. Similarly, the role of some unions may be so significant in a locality as to expand a contour to include companies which ordinarily would be in separate contours or which would be relatively isolated.

A contour is confined to particular ranges of skill, occupations, or job clusters of the constituent firms. Not all types of labor hired by a firm will have wage rates determined in the same contour. Thus, a firm employing a professional chemist, a patternmaker, and a clerk may be expected to be part of three quite different contours. A construction firm hiring boilermakers, operating engineers, and laborers will be a part of the construction product market in each instance, but three separate wage contours are involved. The boilermaker's rate is set over the largest geographical area, while the laborer's rate is likely to be confined to a single locality.

A wage contour can be explored in further detail. In the ordinary case a wage contour contains one, or in some instances, several key settlements. The contour is comprised of the rates for the key firm(s) and a group of associated firms. The key settlement may be set by the largest firm, the price leader, or the firm with labor-relations leadership. Thus in the basic steel contour, the wages determined by the United States Steel Corporation generally have been followed by all other firms in the contour. The other basic steel producers have customarily followed the "pattern" immediately. In the meat-packing contour, the wage leader has been Swift, or in some instances Armour. In the rubber industry each of the "big four" has been the leader on occasion. In these cases, more time elapses between a change by the leaders and a change by the followers. Some firms may follow only at a distance, altering even the terms of the

key settlement in some respects. The American Motors contract in 1955 provided such an illustration in the automobile contour.

A wage contour, then, can be envisaged as a grouping of firms, for a given range of occupations, in which some firms are very closely related to the leaders. Other firms are less directly associated. At the exterior of the contour, furthest from the key settlement, the firms may follow the leadership only remotely.

A variety of devices have been developed which relate wages determined by the key settlement to those of other firms in the contour. The existence of a common expiration date for the wage agreements in several firms or the sequence of anniversary dates is reflective of the relations within a wage contour. Some firms commit themselves in advance to pay the wages set by other companies; many commit themselves to consider a wage change when a "wage movement" has developed in the industry (contour). Specialized product markets or sources of labor supply or skill requirements or union organization may mean that a particular firm, remote from the "center" of the contour, will modify in some respects the "pattern" established at the key bargain.

The firms which comprise a wage contour may be organized into a formal employers' association rather than appear to make wage decisions without a common organization. In an association not all firms actually have equal weight in making decisions; wage leaders exercise the same functions within an organization as they would without one, although an association may mean that all wages are changed at the same time. In many instances, an association constitutes only a formal difference from the wage-leadership conditions that would be evident without an employers' organization.²⁶

Wage-making forces are envisaged as concentrated on the key rates in the job clusters. These rates "extend" out from the internal structure of the firm to the "exterior" and constitute the focal points for wage-setting forces among firms within the contour. The key rates in the job clusters constitute the channels of impact between the exterior developments in the contour (and through the contour the larger developments in the economy) and the interior rate structure of the firm. Moreover, in an analogous way, the key bargains constitute the focal point of wage-setting forces within the contour and constitute the points where those wage-making forces converge that are exterior to the contour and common to the total economy.

A theory of wages is not required to treat each wage rate in the system

²⁶ While the impact of labor organization upon wage rates is frequently discussed in current literature, the question of the effect of employer organization upon wage rates is seldom explored. Frequently a formal employer organization merely sharpens relations already apparent.

as of equal importance. The view of the wage structure outlined above singles out a limited number of key job rates and key wage settlements or bargains for analysis. These particular rates are selected, at least in the short run, by the anatomy of the wage structure which is given by (1) the technology and administrative arrangements of firms, (2) competitive patterns in product markets, and (3) the sources of labor supply. Long-run forces affecting technology and competitive conditions in the product or labor market change both job clusters and contours given in the short run. Thus the spreading of large firms or unions with established wage policies into different product markets may change the anatomy of clusters or contours.

The concepts of job cluster and wage contour are analogous. In each case a group of rates surrounds a key rate. The concepts seek to relate the internal and the external wage structure; they focus attention on the mechanics by which the internal structure through job clusters is influenced by external developments in the wage contour. Wage theory cannot reduce all structure to a single rate; the limited number of strategic rates depicted by the job clusters and wage contours are to be the focus of wage theory.²⁷

Wage Structure in the Short Run

The concepts developed in the preceding discussion can now be applied to a particular case. Table 1 shows the union scale for motortruck drivers in Boston for July, 1953. Each rate shows the wage scale established between the union and an association or group of employers engaged in selling transportation services. Each rate is to be interpreted as the key rate for truck drivers in a series of contours. Some small part of the differences in wages may be attributed to variations in the skill or work performed; some may be related to differences in the length of the work week and the timing of contract expiration during a year, and some may arise from differences in methods of wage payment. The teamsters who work at these various rates are essentially similar and substitutable. Essentially the same disparity in rates is found in most other cities, with a high similarity in the relative ranking of rates for various branches of the trade.

In a significant sense, the case constitutes a kind of critical experiment. One type of labor performing almost identical work, organized by the

²⁷For an imaginative discussion on the concept of labor market, see Clark Kerr, "The Balkanization of Labor Markets," *Labor Mobility and Economic Opportunity: Essays by E. Wight Bakke and Others* (New York: Wiley, 1954), pp. 92-110. The present discussion would add to that of Professor Kerr the emphasis that the scope of product markets is reflected back into the labor market, thus defining the scope of wage setting.

same union, is paid markedly different rates by different associations of employers in the truck transportation industry. Why the wide range in wage rates? Are the disparities temporary? Do they arise from "friction" or "immobilities" in the labor market? Are they primarily the consequence of a monopolistic seller of labor discriminating among types of employers? I believe the answer to these several questions is largely in the negative.

TABLE 1. UNION SCALE FOR MOTOR-TRUCK DRIVERS,
BOSTON, JULY 1, 1953

<i>Transportation service</i>	<i>Hourly rate</i>
Magazine	\$2.494
Newspaper, day	2.393
Oil	2.215
Paper handlers, newspaper	2.062
Building construction	2.00
Beer, bottle and keg	1.905
Railway express, 1½-5 tons	1.869
Meatpacking house, 3-5 tons	1.83
Grocery, chain store	1.819
Garbage disposal	1.725
Bakery, Hebrew	1.71
General hauling, 3-5 tons	1.685
Rendering	1.675
Coal	1.65
Movers, piano and household	1.65
Armored car	1.64
Ice	1.56
Carbonated beverage	1.54
Linen supply	1.537
Wastepaper	1.44
Laundry, wholesale	1.28
Scrap, iron and metal	1.27

SOURCE: *Union Wages and Hours: Motortruck Drivers and Helpers*, U.S. Bureau of Labor Statistics Bulletin 1154, (July 1, 1953), pp. 9-10.

Basically each rate reflects a wage contour. Each is a reflection of the product market. Within any one contour the wage rates among competing firms will tend to be equal. Among individual beer distributors, construction firms, ice deliverers, or scrap iron and metal haulers there tend to be few differences in rates. But there are sharp differences in rates among contours. Fundamentally the differences in the product market are reflected back into the labor market.

But what are the mechanics? Why do not all teamsters move to the higher-paying contours? Or why do not the employers in the higher-paying contours set a lower wage rate, since similar labor seems to be available to other contours at lower rates? In a perfect labor market (a bourse) such changes toward uniformity would tend to take place.

Part of the explanation is to be found in the historical sequence of growth of the trucker's wage scale. Newer and expanding industries or contours, such as oil, have had to pay higher wages to attract labor in the evolution of wage scales. Part of the explanation is derived from the fact that this historical structure of wages has conditioned the labor supply so that the relative rates among contours are regarded as proper. A minor part of the explanation lies in the fact that these wage rates are influenced by the wages of the group of workers these employees tend to be associated with in work operations. Teamsters hauling oil and building materials come in contact with high-paid employees in their work operations, while laundry and scrap drivers have more direct contact with lower-paid employees. A larger emphasis is to be placed on the fact that competitive conditions permit higher pay at the top end of the list. Demand is less elastic and wages tend to be a lower proportion of the sales revenue. But do the firms pay more simply because they can afford to do so? If the union is considered a decisive factor, then an explanation can be made simply in terms of the union acting as a discriminating seller in dealing with different industries. While union influence may be significant in some cases, this type of wage spread is so general, apart from the union, that the principal explanation should lie elsewhere.

When the labor market is tight, the various contours are able to bid for labor so that a differentiated structure of rates reflecting the product-market contours and competitive conditions tends to be established. For a variety of reasons these differentials are not readily altered in a looser labor market. Making a wage change or changing a differential among sectors involves costs. Newer and expanding employers using the same type of labor have to pay more to attract a labor force, and a differential once established by a contour is not easily abolished.

For these various reasons the product market tends to be mirrored in the labor market and to determine the wage structure. The differentials are not transitory; they are not to be dismissed as imperfections. The differentials are not basically to be interpreted as a range of indefinite or random rates, although a community with a wide variety of firms in different product markets may present the impression of random rates. The wage contours and their relative rates reflect the basic nature of product and labor markets.

These arguments can be applied to most of the cases of interfirm wage differentials that have been reported. There are some differences in wage rates which reflect differences in job content; there are differences in costs and earnings in the way firms administer the same wage structure, and there are differences in methods of compensation (incentive and time rates). These factors account for some of the statistically observed variations in wage rates. However, the theoretically significant differences for

similar grades of labor are those which reflect different product-market competitive conditions.

The Long-term Development of Wage Structure

The structure of wage rates of a country reflects to some extent the course of its industrialization and economic development. The supply of labor and the rate and pattern of industrialization are the crucial factors. A country with a scarcity of labor will probably require and establish larger wage differentials for skill than one with an abundant labor supply. A rapid rate of industrialization will produce larger skill differentials than will a slow rate. The sequence in the development of industries in the industrialization process will affect to some degree the structure of wage rates as differentials are used to attract a labor force to these industries from agriculture or from other industrial activities. A comparative study of the wage structures of various countries today reflects the imprints of the path of economic development.²⁸

In an agrarian society, relatively small differentials are required to attract a labor force away from agriculture to industry. The first industries historically required simpler skills, and the levels of rates over agriculture were only slightly higher. As successive industries developed, higher rates were required to draw a work force, not primarily directly from agriculture, but from lower-paid industries. Successive industries appear to require more specialized skills, and higher wages result. The structure of wages thus reflects the pattern of industrialization.

Some of the same phenomena can be seen today when new plants are introduced into a particular community. There are a variety of circumstances which may result in new employers setting higher rates. The higher the general level of employment, the stronger these factors will be. The new industries may require higher standards of skill. The new plants may need several thousand employees as a minimum work force. A higher rate is needed to attract that number than if the plant were to grow gradually from a small figure. Labor costs are frequently a small fraction of total costs, and the product markets are often oligopolistic. These factors permit or encourage the enterprise to set a higher rate for the key jobs than would be paid for a comparable level of skill in other jobs in the community. The oil, chemical, atomic, and television industries provide current examples. All this suggests that there is a tendency for new industries to push the wage level upward.

The wage structure is to be approached as a reflex of the larger pattern of industrialization. The wage structure of an agricultural economy is

²⁸ See John T. Dunlop and Melvin Rothbaum, "International Comparisons of Wage Structures," *International Labour Review*, vol. 71 (April, 1955), pp. 347-63.

largely undifferentiated by skill or product-market divisions. Increasing industrialization creates increasing differentiation by skill, creating many new occupations and job operations. Some of these occupations or jobs are key jobs and provide the basis for interfirm comparisons. Increasing industrialization also creates new groupings of products within which are unique types of competition. These product-market characteristics, combined with some features of the labor market, create wage contours within which wages tend to move under common forces, as opposed to wages outside the contour.

When a wage structure has been established, the labor supply tends to adapt itself to the relative structure of rates, as reflected in key rates, in a variety of ways. Preferences and relative ratings given to jobs by workers are not autonomous; they reflect the broad outlines of the established wage structure. The long-established rate structure, created as envisaged in this discussion, influences the choice of workers and may even take on normative elements. The labor force, for most occupations, would appear to be highly pliable over a generation. The established wage structure comes to shape labor supply over the long run. This is not to deny that supply may not adapt readily in the short period to changes in relative demand. Nor does it deny that relative wage rates may affect long-run supply for some occupations within some limits. The point is that the labor supply over a generation is clearly highly adaptable to the great variety of jobs created by modern industrialization and that the work force tends in important respects to adapt itself to the long-established rate structure for key jobs.

CONCLUSIONS

The questions that are posed for contemporary wage theory are quite different from those that challenged the wage-fund and marginal-productivity doctrines. The analysis of wage determination in each doctrine was at the very center of economics. As these earlier doctrines declined in usefulness and popularity, a tendency developed to treat wage rates as determined outside the system and as given for economic problems. Wage theory has shown a tendency to break down, particularly on the supply side.

A few suggestions have been made for the future of wage theory. A single wage rate or average concept is inadequate. The structure of wages, the whole complex of differentials, needs to be explained. Moreover, the determination of the wage level and the structure of wage rates are interrelated. In the analysis of wage structure, the concepts of job clusters and wage contours define the points at which wage-making forces are concentrated. The *anatomy* of the wage structure must first be understood

if one is to explain changes in response to demand-and-supply factors. These concepts help to focus attention upon the operation of demand and supply. They suggest that product-market competition and conditions decisively influence the structure of wage rates. In the longer run, however, the wage structure is a reflex of the pattern and speed of industrialization.

6. *The Internal Wage Structure*

Primary emphasis in this chapter is placed on the determination of wage differentials. No attempt is made to state a complete wage theory for the firm. The discussion and concepts of this chapter must be integrated with a more complete theory for the firm, with broader aspects of wage theory for the industry, and with more general concepts of economic and social behavior. However, the development of ideas on the wage structure of the firm may contribute to these larger aspects of theory and to the future study of wage structures.

The definition of the term "internal wage structure" is admittedly somewhat loose. As used in this chapter it refers primarily to single plants or establishments, but also to multiplant firms, depending upon their policy and environment (in this connection see Ross's comments, Chapter 7, pp. 176-178). The term applies particularly to more complex structures, such as exist in many manufacturing plants, but also to simpler craft structures, with modifications in emphasis. This material must be read with qualifications as to particular points, depending upon the type of wage structure one has in mind.

The concept of the internal wage structure is a significant approach to wage-rate analysis. As thinking shifts from the more or less exclusive role of impersonal market forces to encompass union and management policies, procedures, and actions, some adaptation of approach is necessary. Abstracting the internal wage structure for consideration has the advantage of staying within a decision-making organizational unit and dealing with a problem having realistic administrative scope. In such an approach the discussion of "market," "administrative," and "institutional" forces can be blended in much the same way as they are in the other chapters of this book.

This approach necessarily puts in question the rather strong undercurrent and habit of thought of applying "demand and supply" independently to each wage rate in a plant as a subcase of the more general approach. At the very least, much of the richness of reality is lost by this

process. More important, there simply is no compulsion of market forces adequate to explain the detailed determination of wage differentials.

Internal standards of job comparison, formal or informal in character, are a much more adequate explanation of many wage differentials than are market forces. From this point of view, the wage rate for one particular job in a plant cannot be divorced from the wage rates for other jobs within the same plant. Wage-rate and job-content *relationships* are a most important part of the explanation of each particular rate. Exploration of the nature and types of such relationships is an essential phase of wage theory.

To be sure, the standards of internal job comparison are similar in general character to those used in explaining occupational wage differentials in the labor market. But giving living reality to the wage structure in a plant as a going institution is quite different from relying upon a market-equilibrium concept as applied to each rate. Viewing the wage structure as a whole, in the light of both internal and external forces and adaptations, should supplement and clarify the total process of wage determination. Certain background considerations need to be discussed first, however.

INSTITUTIONAL AND TECHNOLOGICAL BACKGROUND

Most areas of production and distribution are dominated by a highly integrated process and a narrowly specialized labor force. The "job" is a narrow base for wage analysis, apart from its immediate technical reference. Many "occupations" have disintegrated with technical advance; remaining occupations are often subdivided over a wide range of skill.

The Production Process and the Demand for and Supply of Labor

While some jobs still provide a reasonably distinct occupational category existing within various firms within a labor market, the great proportion of factory jobs are highly specialized as to industry and constitute a narrowly subdivided task within each industry. With such confined job- and wage-rate reference and with a highly integrated technical process, neither from the demand side nor from the supply side can one job typically be regarded as independent of related jobs.

The integrated production process creates a wide but variable area of joint demand for labor. An expansion or contraction of production is rooted in a technology which requires "balanced lines," with relative labor requirements on many jobs held to fixed ratios.

But this joint demand, while applicable to expansion and contraction of production and employment in a static sense, is also subject to con-

tinuous flux with dynamic changes in product design, product mix, and methods of production. By way of example, diesels altered the composition of maintenance work in railroad shops in part by expanding the electrical phases of the work and contracting the mechanical. Or again, the postwar style trend for men's shoes has considerably increased the proportion of stitching hours required to manufacture the average shoe.

For certain selected jobs and for some problems, demand for labor can be, and even must be, viewed with reference to the "job," but changes in the demand for labor commonly are with reference to a unit broader than the particular job. So common are these broader changes in the demand for labor, and so rooted in the productive process, that modern technology must be regarded as a force creating areas of joint demand with limited scope for the meaningful application of demand to highly specialized types of work.

There are similar difficulties on the supply side in attempting to conceive of independent supply curves for each particular job. With relatively small differences in the amount and kind of training, workers can shift over a fairly wide range of related jobs.

Within a group of jobs in a single plant related by a common pattern of promotion and transfer, not necessarily within a simple single sequence of jobs, wage differentials can be considered as premiums to compensate for added training and greater responsibility and to equalize disutility elements.¹ But if one adds the requirement that each job price must clear the market, contradictory facts arise. Within any such group of related jobs, the number of employees able, willing, and desirous of being promoted far exceeds the number promoted. The better-paying jobs appear at any given time to be rationed. This, of course, does not end the debate, as over a period of time some system of differentials would appear to be required to maintain the supply of labor on the more skilled jobs.

Modern technology has created a job structure which does not lend itself to a very satisfying explanation of internal wage differentials by a simple demand-and-supply approach. Fixed ratios of employment on so many jobs make it difficult to conceive of differentiated demand among these jobs. Joint demand blurs the demand concept for the purpose of the wage-differential problem. Discrimination from the point of view of relative supply is at least equally difficult, except as a dynamic concept of unknown normal magnitude to maintain an incentive for promotion.

Parenthetically, what is the appropriate economic concept to portray

¹ In particular cases, other influences may modify these commonly noted bases for wage differentials. Incentive jobs have a real or presumed effort—and output-premium. Variations in competitive conditions in different product markets may be reflected in job differentials. Special bases of payment, such as payment per mile in transportation, may have job and occupational repercussions.

the reality of the promotion incentive and its wage magnitude? Leaving aside those professional fields which have large monetary costs borne by the individual and other specialized jobs for which there is no free training opportunity, most jobs in industry have no money cost of training to be borne by the individual. Both on-the-job and classroom training are provided by firms to create an adequate supply of skilled labor. Some company programs are outstanding in the opportunities they provide; other programs are more "catch-as-catch-can" but, nonetheless, meet the requirements of the firm. With some admitted exceptions, individuals are not prevented from taking higher-paid jobs because of the cost of training. A few workers have no desire for promotion, but most workers eagerly await the opportunity to move up the wage and job ladder. While a few workers are eliminated by inability, neither lack of ability nor lack of desire for better jobs limits the supply.

Workers in general simply do not have the opportunity to work at the skill level of their choice, nor are differences in job attractiveness, except for a few disutility elements, equated by wages. Jobs are rationed by the opportunities inherent in the productive process in relation to whatever selection policy may prevail in a given company. Over wide areas, selection is controlled primarily by seniority, in others, by managerial judgment of the relative abilities of individuals.

On the whole, a job-rate equilibrium concept seems a poor fit to these facts. An individual balancing of net advantages and disadvantages with no incentive at the margin to "move up" is an odd sort of notion. Realistically, the wage structure should, no doubt, continue to have a promotion-incentive factor with a continuous excess of workers able and willing to fill higher-paying job vacancies. While this is not well expressed by a wage diagram, it at least somewhat resembles a goal of "practical" wage administration. Perhaps a rapidly expanding economy operates best with a fairly large skill differential, but some economies appear to operate with a very small monetary incentive. This is no attempt at an answer. The question is merely posed of the meaning of a wage equilibrium concept in the allocation of workers within the skill hierarchy.

The Seniority System and the Labor Market

The joint development of collective bargaining and personnel policies has disrupted the direct relation of many wage rates to hiring, so far as the labor market is concerned.² The wage rate is also a most inadequate

² A closely related discussion is to be found in Clark Kerr, "Labor Markets: Their Character and Consequences," *American Economic Review*, vol. 40, no. 2 (May, 1950), p. 278. The distinction between the wage and employment function is an essential one.

and incomplete motivational explanation to account for an employee's willingness to remain in the employ of a given company.

The vast proportion of job vacancies in any plant or company is filled today, not by hiring from the outside, but by promotion from within the organization. There has been no sharp break with the past, for internal promotion has developed with the growing diversification and specialization of jobs. However, the growing importance of collective bargaining and modern personnel practices gave significant impetus to promotion from within. The policy avoids criticism of holding back those already employed in favor of outsiders, and is a basic part of increasingly elaborate programs to build morale and security by encouraging a lifetime view of employment with a given organization.

This policy and practice of promotion from within restrict hiring to a relatively small number of what may be called "hiring-jobs." While the list of such jobs is not completely static over a period time, these jobs are at all times a small proportion of the total and are typically at the bottom of the wage scale. By contrast, some hiring-jobs are above the lowest wage level. This is true where an entire group of jobs, including the bottom job in the group, is above the lowest level and has not been integrated with other promotion sequences. It is also true for certain unique jobs requiring training not provided within the organization.³

The pattern of hiring-jobs is one aspect of the particular wage structure. In broad view, however, the pattern would show these jobs grouped at the bottom of the wage scale and spread throughout departmental and organizational units as entrance spots from which most other jobs are then filled.

Probably a worker would not decide to leave one employer simply on the basis of a higher wage rate in another plant. While seniority is a strong influence in promotion, its almost unqualified application to layoff brings greatly enhanced job security with continued years of employment. This security against layoff is given added meaning by protection against arbitrary discharge. Standards by which the equity of discharge is judged, consciously and unconsciously, give weight to length of service. Each year also finds increasingly elaborate benefit plans related in amount to length of service. In this world of seniority, an employee would certainly be peculiar if he judged his economic position only in

³Variations in the extent and scope of internal promotion as contrasted with outside hiring are no doubt quite significant. Differences in the amount and type of training required on different jobs, differences in seniority units and customs, differences in management policies, as well as other factors, make this a complex picture. Within the same industry some firms do more "outside" hiring than others. Differences also exist among different labor markets. The trend, however, is presumably toward broader integration of jobs and more extensive training and promotion.

terms of his wage rate. Even here, his alternative choice is with hiring-jobs elsewhere. Above all, job security with its hedge against "hard times" is a most important retention influence.⁴

Most particular wage rates are thus not directly or closely related to a local labor market from an employment point of view. Employees enter and leave plants from the lower-paying "bottom" jobs. Expansion brings more rapid promotion. Recession brings layoff or demotion and downgrading for low-service employees. While seniority patterns differ, lay-off schedules illustrate the indirect connection between many jobs and the labor market.

Wage Administration and Wage Inequities

Particular wage rates are set by administrative decision within the firm. Neither union nor management policies, attitudes, and objectives toward the wage structure can be regarded as simply an adjunct to the employment process. Managements have increasingly worked toward a stable structure frequently based upon job evaluation in the local plant. Unions have increasingly accepted a stable structure, but have worked to broaden the base of comparison and are more qualified in their acceptance of evaluation. Union skepticism toward job evaluation has many facets. Perhaps the greatest fear is of the use of evaluation to freeze unions out of the wage-differential area or to restrict wage-differential policy too narrowly. Related to this is fear of an overly scientific, as contrasted with a looser equity, approach.

Real differences in philosophy may create administrative conflict in adjusting wage rates with technological change. It is not easy for a union to allow a job rate to be reduced, particularly with increased output per hour on a machine, regardless of the logic of the job analysis. Craft rivalry, traditional wage relationships, and the numerical significance of particular groups within the union may give a shallow ring to "logical" job relationships so far as the union leader is concerned.

On the other hand, with a reasonable voice in policy and administration, a union may find evaluation constructive and desirable from its point of view. Even in unions with official positions opposing evaluation,

⁴Statistics on labor turnover by length of service give clear support to this point of view. It would be difficult to maintain that ignorance of alternative employment opportunities is also a function of length of service. The resulting immobility is clearly a rational economic decision, though just how much immobility results is an open question.

There may, on the other hand, be some enhancement of mobility through the seniority advantage of getting in on the ground floor in new plants and expanding industries.

While seniority factors can be allowed for in explaining workers' job choices, they then obscure the explanation of wage differentials.

acceptance in particular situations is commonplace. There at least would appear to be a growing accommodation of management and union attitudes in this area.

Partly under government intervention, wage comparison has been facilitated by a large expansion in wage information. Establishing proper wage differentials has come to be a distinct administrative function with a defined general objective of maintaining equitable job-rate relationships.

The development of job evaluation has been a real force in the creation of simplified and improved rate structures. Apart from the impact upon the individual plant and company, job evaluation has had a more far-reaching influence. The widespread use of particular job-evaluation plans, such as the National Metal Trades plan, has created more nearly identical wage structures in geographically separated labor markets and has facilitated wage comparisons. Within communities, the increasing prevalence of similar evaluation plans has had the same effect. Finally, the use of job evaluation in collective bargaining on an industry basis, most notable in basic steel, has created nearly identical detailed wage structures throughout an industry or segment of an industry.

Collective bargaining, with or without job evaluation, has been an influence in creating and extending simplified and more uniform wage structures. While this influence is, perhaps, less obvious in the absence of job evaluation, many bargained structures are closely analogous to evaluated structures; and the "removal of inequities" is a common part of the bargaining process, as is the diminishing of differentials for the same job within and between labor markets.⁵

As collective bargaining first developed in the mass-production industries, wage inequities were an obvious avenue for union activity within wage structures that had not been subject to centralized managerial control and had more or less just grown. Nor were union representatives too concerned, during the organizational phase of union development, with just what constituted an inequity. As unions became going concerns, constant wage inequities were no more attractive to them than to management. Contracts began to restrict the area of wage grievances; wage-structure standards were developed.

In the light of our present knowledge neither the general impact of collective bargaining upon the wage structure nor the impact of management and union policies viewed separately can be stated simply. But attitudes and actions "for and against" such policies as job evaluation, wage incentives, rate ranges, automatic progression, freezing wage rates

⁵ Inequity negotiations may combine the elimination of job inequities within the plant with the elimination of corporate interplant and industry geographical differentials. Union goals may include, but not be limited to, the traditional objectives of job evaluation.

by contract, revising rates with changing technology, arbitrating wage rates and production standards, and other policies are clearly continuously influencing wage structures. Also significant are factors such as craft rivalries, the degree of conflict or accommodation in union-management relations, and the character of leadership in union and management organizations. As one example, the wage structure in a basic steel plant in 1955 could hardly be explained without reference to this range of considerations. While wage theory must of necessity abstract from many particulars, the usefulness of the theory may be judged in part by its potential supplementation in the light of these kinds of influences.

The discussion thus far has attempted to make clear that an operational type of wage-differential theory relating each plant rate to a market rate through the employment process is highly unrealistic. This is not to say that there are not "labor-market forces," both in an employment and a wage-comparison sense. It is to say, however, that not every wage rate is of equal significance and that systems of rates must be explained and related to their economic and administrative context and environment.

SOME WAGE-STRUCTURE GENERALIZATIONS

The background considerations previously discussed tend to support the view that the wage structure requires special analysis as such. Each single wage rate is not simply a subcase of the general case of demand for and supply of labor for the firm. But how can the process of wage comparison be analyzed to place this process within a meaningful framework? Certainly it is not adequate to regard the wage structure as nothing more than a process of internal job-content comparisons. It is equally discouraging to attempt to relate each wage rate to the labor market. Finally, it is not possible to ignore labor-cost influence and restrict thinking about the structure to wage relationships without regard to cost significance.

As a starting point in developing an analysis, three propositions are advanced and then discussed. These propositions are themselves related and each proposition can be, and is, of different significance for different firms in different economic environments. Needless to state, the propositions also require supplementation in various ways. They are as follows:

1. In internal wage-rate comparisons of job content and job relationships, any given job is not related to all other jobs in an equally significant manner. Some jobs are closely related as to wage significance, others more remotely related. While such job relationships have no simple, single basis, the larger relationships develop around key jobs.

2. In the external comparison of job rates in the firm to labor-market rates, each job within the plant structure is not related to a market rate

in an equally significant manner. Not only are there obvious variations in the "mix" of different types of plants and jobs in different labor markets but there is again no single, simple type of relationship. Joint integration to the market and to the internal structure, however, evolves around key jobs.

3. In relating the wage structure to labor cost, each job rate is not of the same significance as an element of labor cost. While most particular jobs are a small proportion of total labor cost, some are not, and employment at different wage rates varies widely in labor-cost significance—with the bulk of labor cost concentrated within a fairly narrow range of "production" rates.

The first two points are stated in terms of wage *comparison*. The significance of comparison is left open for development. Internal comparison is advanced predominately as an equity concept inherited in large part from valuation in the market place, but applied in its wage-administration and job-content context to create "fair" wage rates. External comparison is also meaningful in an equity sense relative to wage rates paid elsewhere, but is in addition related to the opportunity to hire and select as applied to groups of jobs and to some individual jobs.

As a broad framework, forces influencing the general wage level for an industry or for a wage contour are assumed. Also assumed are forces influencing the general level for the particular plant within its industry and labor-market context.

Internal Job Comparisons and Job Clusters

The basic premise here is that internal job-content comparison as a basis for wage-rate determination is stronger, and of a somewhat different character, within certain groups of jobs than between them. It is difficult to give a single name to the job groups within which internal comparison is most significant, but they may be called job clusters.⁶

As an elaboration of the basic premise, there are broad job clusters containing narrower clusters. Broad groups may be illustrated within manufacturing as (1) managerial—executive, administrative, professional, and supervisory; (2) clerical, and (3) factory. Within each broad group, narrower groups are obvious.⁷ Within the factory group are maintenance, inspection, transportation, and production. Within production are certain smaller groups, varying with the nature of the industry.

⁶The term *job cluster* follows Dunlop; the broad outline of this approach has been jointly discussed over a number of years. See Chapter 5 by John Dunlop.

⁷Broad and narrow groups are somewhat arbitrary, but the distinction is essential relative to different types of structural wage changes. For example, for some structural problems one might find no need to break down the clerical group into narrower groups; for other problems, the subdivisions would be of primary importance.

Job-content comparison as a basis for wage-rate determination is felt to be strong within narrow clusters, somewhat weaker between narrow functional groups, and of least significance in relating broad clusters. An added notion must be introduced to this. Each cluster contains a key job, or several. Wage relationships within a narrow group and among such groups revolve around key jobs. Within clusters the primary determinant of non-key job rates is the job-content comparison with the key job. Among clusters, the basic consideration is the relationship among the respective key jobs.

Relationships among key jobs, and hence among clusters, cannot be outlined in simple form. The view has been stated that job-content comparison is somewhat weaker among narrow groups than within them, and weaker yet among broad groups. This does not necessarily imply that external forces become stronger as internal determination of wage differentials becomes weaker. In a broad way this is felt to be true, but the relationship between internal and external considerations is a separate, though related, question, heavily dependent upon the particular environment. What is meant is that in so far as internal comparison continues to be the basis for wage determination, the relative compensation among broad groups is less rigorously determined by job-content comparison but depends more upon general judgment as to the appropriate relationship.

The Nature of Narrow Job Clusters

There is no single basis of classification for narrow job clusters. Geographical location within a plant, organizational pattern and common supervision, related and common job skills, common hiring jobs and transfer and promotion sequences, as well as a common production function, tie jobs together. The notion of a common production function deserves some emphasis, however. Departments frequently signify separate job groupings as they relate to different phases of production, thus constituting a functional group of related jobs.

Look quickly at a few industry structures. A shoe factory is divided into departments of cutting, stitching, lasting, making, and packing. We can recreate the historical process from the cobbler to the crafts to the specialized jobs. Today departments take the place of earlier crafts, but each department is organized around a phase or function of production. In textiles there is a spinning room, a weaving room, a carding room. Steel integrates coke ovens, blast furnaces, open hearths, and mills. On a ship, we find the engine room, the deck department, and the steward's department. Endless examples of the nature and organization of the production process reveal such job groupings, typically signified by "division" and "departmental" lines but based upon different production functions inte-

grated into a larger whole. The reason for using the term "functional group" for these wage-related groups of jobs is to place primary, though not exclusive, emphasis upon this kind of job grouping.

Consider very briefly, as an example, the lasting and stitching departments in a shoe factory. One group "makes" the upper; the other "lasts" the shoe. Most, but by no means all, of the jobs in the stitching department are stitching jobs. These involve various special types of sewing machines. Some such stitching jobs are so closely related as to be almost (but not quite) the same job, as stitching straight tips and stitching fancy tips. Some stitching jobs require much more skill than others—in fact, the difference in training and experience required for these jobs may be greater than that required for many jobs with no common element of skill. In the lasting department, the specific element of common skill in operating similar machines is absent, but the tests of a well-lasting shoe are related among the jobs. As between these departments, transfer is virtually unknown. Each department has its own hiring-jobs and promotion sequences; one is predominately female, the other male; and wage comparison across the departmental lines, while not completely absent, is much weaker than within each department and is of a more general character.

Special Job Clusters

There are, however, at least the following meaningful special types of job clusters falling within the broad managerial, production, and clerical groupings:

1. The departmental functional group. This has been illustrated by the stitching and lasting departmental association of jobs with their respective hiring-jobs and transfer and promotion patterns.

2. The skill family. This has been illustrated by the stitching jobs within the stitching room. Other examples include (*a*) a craft job as in a steel plant with its apprentice scale and progression, then the job starting rate and class, the intermediate rate, and finally the full journeyman rate and class; and (*b*) many occupationally based jobs—typists, stenographers, semicraft machine operators, locomotive engineers, and so forth—with simple or complex levels and types of skill.

3. Related types of work. This can be illustrated by the varieties of "inspectors" in the New Hampshire state government. All these jobs relate to law enforcement: state troopers, game wardens, conservation officers, prison officers, probation officers, motor vehicle inspectors, theater and public building inspectors, aeronautical inspectors, food inspectors, factory inspectors, liquor inspectors, public utility inspectors, bank inspectors, etc. The differences among most of these jobs are far greater than their similarities. They also fall within many departments.

They are related, however, as a wage group, though the relationships are not equally strong among all jobs.

Frequently inspection and assembly jobs in a factory are so diverse in character that they are not in any true sense an occupation or skill family, but are closely related for wage purposes and treated somewhat as though they were such a family. Various professional jobs—the “engineering” categories, for example—are closely related. Maintenance jobs constitute a similar category. Accounting and bookkeeping jobs might be described in part as a skill family and in part as related jobs. In various ways, jobs are thus pulled together through the performance of related kinds of work.

4. The work crew or closely knit work group. One of the clearest examples of such a group is a crew working on some large type of equipment—the open hearth crew, the rolling mill crew, the paper machine crew, the printing press crew. The jobs on an open hearth—including first, second, and third helpers, the charging machine operator, the crane-men, the pourer, the stacker, and others—are clearly related by joint responsibility, level of responsibility, and the technical integration of work. Even small equipment frequently has operators, feeders, take-away men, and other kinds of specialized workers. A conveyor may create a closely knit work group. Various “gangs” may work at separate or remote locations. In an office, payroll jobs might constitute a closely knit work group.

In the above categories, the departmental functional group and the work crew or work group are, in wage terms, both “horizontal” and “vertical” in character. The skill group is predominately vertical and the related-job group can be either vertical or horizontal, but some of its most interesting impacts are horizontal. No exhaustive typing is possible, and there are groups within groups, as well as overlapping and tie-in relationships.

There can be no rigid classification of narrow job clusters. Sometimes a department is so large and diverse that it does not constitute a meaningful wage group. A related work group or a skill family may cut across departmental lines. In other cases, departments, skill groups, and related jobs may reinforce a single relationship. There is reality, however, in the concept of degree of wage relationship and job-content comparison in terms of groups of jobs.⁸

Job Clusters and Wage Relationships

Within a narrow job cluster, wage relationships are predominately based upon a technical, though not necessarily formal, job-content com-

⁸ Job-evaluation labor grades conceal the kind of job groups discussed and may appear to give an artificial simplicity to the relationships among jobs.

parison. The skill required (including job knowledge) is the primary differentiating factor,⁹ but there are modifications in job placement relative to responsibility, working conditions, and physical effort (in the sense of heavy or light work). These relationships are influenced somewhat by custom and tradition and are mutually interdependent with promotion and transfer sequences. A wage differential of 5 cents per hour between two jobs within such a group is typically quite meaningless in terms of ability to hire or retain employees in a market sense and is also insignificant in terms of labor cost.¹⁰

Close association of employees on cluster-type jobs creates an environment that forces close comparison of jobs and allows a type of direct comparison more meaningful than where jobs are less closely integrated. Within such a job group, evaluation typically works out with reasonable precision and normally preserves a high proportion of existing wage relationships. Job content does not, however, create a completely rigid hierarchy.¹¹ Minor differences in placement can and do exist among the same jobs in different companies. Complete agreement as to the proper relationships would not be expected. These differences, however, serve only to emphasize the common-sense patterns in the major outlines of the relationships and the reliance upon judgment as to the relative wage significance of job content.

Normally there are one or a few key jobs within a job-cluster group. A key job may simply be a "good" cross-comparison job, because of similarity of job content, but usually a key job has significance because of its importance as to number of employees or key skill.

Primarily, key jobs are the more important jobs, the dominant jobs, within a group. Non-key job relationships are built around key jobs. A non-key wage rate may be adjusted with minor or major social disturbance within the group, but with little or no impact outside the group. This is a significant limiting aspect of wage relationships. Adjust a key job, and it may well pull all or most of the non-key jobs with it; and there will typically be repercussions outside the particular cluster—major or minor, depending on the strength of the ties with one or more other groups.

Internal comparison between key jobs in different clusters tends to be less precise and of a somewhat different character than comparisons within a group. As comparison is made among jobs that are very different

⁹ In some process-type industries it may be debated whether skill or responsibility is the primary differentiating factor.

¹⁰ It is related, however, to the previously mentioned, and difficult to define, concept of the promotion-incentive factor.

¹¹ Technological change, which will be discussed briefly on p. 154, is a constant disruptive factor.

in type and kind of job content, the area of judgment as to the "correct" relationship widens. Consciously and unconsciously, judgment leans more upon external market relationships or established internal relationships as the differences in job content and "social distance" increase.

Relationships among key jobs, and hence among clusters, must be qualified to admit differences in the strength and character of the association. Some relationships may be quite close in binding together internal groups. Two rival crafts forming key jobs in two groups may create a very close association. In other situations, the employees on one key job may hardly be aware of the existence of a second key job. The number of employees in particular groups, the traditional social position of a group, and other such considerations play a role in the relative strength or weakness of these relationships. Internal relationships may be reinforced or weakened by the existence and strength of external wage relationships. Cost considerations are also involved, as discussed later.

Key Jobs and Market Comparison

While recognizing these differences among key-job relationships, the general point may be illustrated by the common procedure in applying job evaluation. The problem of rating the key jobs is quite different from rating the non-key jobs. The first step, creating the "skeleton" by placing key jobs within the evaluation scale, is much more difficult than filling in jobs once the skeleton is created. Where, for example, should the key maintenance jobs or the key office jobs be placed relative to the key production jobs? In the case of office jobs this direct question is typically avoided, since a different evaluation plan is almost always used. With the maintenance jobs there is a considerable area of judgment.

Putting the question even more broadly, certain jobs are "key" jobs from a market comparison point of view. This list of key jobs is not necessarily identical with the list of internal key jobs. Some wage structures are keyed to the labor market at only a few points. Not all companies or plants are in an identical market position. In a high-paying industry, reference to the labor market may be almost exclusively to other companies and plants within the industry. The steel industry inequity program appears to be a case in point. In a high-paying plant within an industry, existing plant relationships may be accepted as established relationships. In lower-paying plants and industries, market comparisons may be more directly related to local hiring conditions. But with all these relationships, the close association with job content becomes a weaker basis for wage determination.

Broadly speaking, there is, of course, a strong tie among all jobs in a plant. Stability of differentials, once established, is quite firmly maintained. Economic forces, both cost pressures and hiring considerations,

apply in a major sense to the structure as a whole. A plant contemplating expansion from 20,000 employees to 40,000 in a city of modest size will have a different view of its "ability to hire" than will a small firm requiring an insignificant proportion of new entrants on the labor market to maintain normal employment. At the other extreme, the placement of one particular job is adjusted from time to time primarily with changes in job content. There are, however, adjustments of groups of jobs, such as all maintenance jobs, all office jobs, etc., demonstrating a degree of independence for broad and narrow clusters. This group movement of jobs is clearly shown under the impact of job evaluation. Study of such job-rate changes will demonstrate group realignment and a significant degree of preservation of narrow internal group relationships. Group adjustment is also shown in the historical evolution of particular wage structures. "Inequity" negotiations and the grievance procedure bring out responses between and within clusters.

While these various types of wage changes do not lend themselves to simple representation, they seem sufficiently clear to support the general proposition that all job rates, viewed through internal comparison standards, are not related with equal or similar significance, but are composed of a system of broad and narrow groups organized around key jobs. In rough outline, these groups can be analyzed in terms of joint demand and supply for particular types and kinds of labor. Perhaps, more appropriately, one should say that they reflect adaptations to labor-market conditions in which wage comparison and hiring considerations are blended. As part of this process, they change with modifications of job content as broad production processes are modified. No easy "causal" statement is possible; nonetheless, group wage movements are a significant aspect of the wage-determination process.

Issues Arising from Technological Change

Before leaving the subject of internal wage comparisons, special mention must be made of the impact of technological change. Wage-rate grievances are most commonly associated with new or changed jobs; wage relationships are continuously forced to adapt to this dynamic factor.

Technological change may leave unaffected, may increase, or may decrease the skill and responsibility required in performing the job. It may also alter working conditions and physical effort. On balance, one can only speculate as to the total effect. "De-skilling" creates obvious headaches and problems and consequently attracts attention; upgrading, however, can certainly not be neglected.

One example of upgrading recently encountered has changed craft relationships in a particular printing establishment. All major craft groups

have gained about equally from general wage increases in the period since 1940. Pressmen have gained, however, with the introduction of larger, more complicated, and faster presses. Technological change has been much more marked in the press department than in other departments. It has effected a change in group rate relationships by creating a significant proportion of more skilled and more responsible new and changed jobs. Product mix has also changed in favor of these jobs. Note particularly the group effect in raising average earnings and creating new promotional opportunities, as well as the specific effect upon particular jobs.

The troublesome wage problem arises when the skill content of a job is reduced. Workers are conscious of the advantage to the company of greater production per hour and lowered unit product cost. They wish to share in the gains of technology, or at least not to suffer a job-rate reduction. Industrial relations effects vary, of course, with the size of the group, promotion opportunities, layoff or demotion necessities, protections to present incumbents, and other factors. But sharing gains with all workers is "pie in the sky," and it is far easier to gain acceptance of new methods if the rate can be sweetened a bit. The logic of rate relationships may be submerged in such situations. A job-evaluation director nearly resigned recently in a plant making its first major move in the much discussed area of automation. On the other hand, an out-of-line rate can become the source of future grievances.

It is somewhat unrealistic not to expect technology to create continuously some proportion of preferred wage positions. While this does not alter the longer-term relationships which tend to mold the wage-differential structure, it must be given an important place in understanding day-to-day wage problems. General reviews of all jobs with differential wage increases may well continue as part of the process of gradual adjustment of a wage structure to technological change.

Wage-structure Adjustment to Market-rate Influence

The influence of the labor market upon the wage structure can best be approached by a descriptive type of analysis. Individual firm and industry variations in the general level of wages are assumed to be a major source of rate dispersion. Consider in this setting the degree of dominance of particular market rates and the source of such dominance.

To start with some simple examples, in a small city one inquires of a high-paying firm what they pay an industrial nurse and why. The explanation is given that the job is evaluated and comes out at x dollars. Upon further discussion, we find that the personnel man feels that, in truth, the evaluation is definitely on the low side; but, after all, they're paying 25 per cent more than the local hospitals. In a low-paying firm,

we find that they pay the switchboard operator the identical rate paid by the telephone company. We ask whether that isn't high in terms of their other office jobs. The answer is yes, but they always hire a trained operator; the rate is really quite independent of other office rates; and it causes no "trouble." Consider an over-the-road trucking rate in a low-paying mill. Do they meet the trucking-firm rate? No, but they aren't organized yet and they do have the rate up so high that they would hate to have to argue it with some of their skilled production workers. In fact, they're not at all sure that they shouldn't sell their trucks and contract the work.

In all these examples the wages in question constitute peripheral rates for the companies discussed. These rates tend to be paid for hiring-jobs and they do not constitute internal key-job rates for significant clusters within the company (the trucking rate could be a key job in a warehousing department). They also have in each instance been pulled out of "consistent" internal alignment by market-rate influences. The market-rate influences are dominated by segments of industry in which the rates discussed are part of the central core of the general rate structure and subject to general rate influences in those industries. Consider a broader example: a paper box plant in Detroit in which the general rate structure is low by Detroit standards. How will this plant get maintenance and office employees and what will they be paid? We find that maintenance employees constitute a "tougher" problem than do office workers, but both are more difficult to obtain than the predominately female production employees. In this case, both maintenance and office rates are, the managers feel, on the high side relative to the firm's general level of wages. In fact, they have had to make "major" concessions to get and hold a maintenance staff.

In thinking of examples of market-rate influences, a series of considerations arises relating to how necessary it is to meet or at least come close to market rates and how difficult it is in terms of mutually interdependent wage relationships and cost effects within the firm. The pull of internal consistency through internal key jobs must be taken into account. This pull is around the central core of the general rate structure. There is also the pull of the market, which may be over a broad general group or quite specific as to a single job. The pull of the market may be essentially an equity comparison or quite directly related to hiring.

In the state wage structure in New Hampshire, a point was reached at which forty vacancies existed in the civil engineering series in the highway department. The implication was clearly either to revise the salary rates or curtail the department. A tapered adjustment covering the lowest three of six civil engineering categories was made, hiring being more critical than retention. Within a year most of the vacancies were filled.

This local incident occurred in the midst of a country-wide shortage in all the professional engineering fields. Internal consistency, in a static sense, had to yield. On the other hand, a survey of civil engineering salaries would show the usual wide dispersion of rates and the presumed weakness of market forces.

Certain market rates may be highly structured within a community, ranging from a single rate to a narrow band. Other market rates are much more diffuse, covering a wide band with no central identifiable dominant source. A rate may be part of the central core of the general wage level, a key job in a broad cluster, a key job within a narrow cluster, or a peripheral, semi-independent rate. The position and meaning of the same job rate vary from industry to industry and company to company. The rate may be closely or more remotely connected to hiring.

Among these various wage examples, consideration must be given to firms and industries insignificantly influenced by "local" labor-market conditions. An oil refinery in a town or city may be slightly interested in local rates but not meaningfully so. The managers make "equity" comparisons within the industry, but there are no local-market rate compulsions. Their general rate structure is simply high enough to create an internally determined structure subject to equity comparison within the industry. The basic steel structure, as previously mentioned, was similarly relatively uninfluenced by rates outside the industry.

The diversity of actual markets in terms of geographic location, industrial mix, size, degree of union organization, and other characteristics explains the fact of rate dispersion. Employees are closely attached to particular companies, and hiring in most cases is predominately related to vacancies rather than closely to rates. Nevertheless, market-rate influences upon a wage structure do exist. The problem is one of formulating this influence in reasonable balance with other forces. The influence runs predominately by groups and categories of jobs through key jobs. It must be stated relative to the general level of wages for the firm, as associated with its industry, and to the total wage pattern in a community.

Only confusion results from attempting to draw a hard and fast distinction between market influences and internal-rate relationships. But there are differences in degree of influence. Internal relationships are strongest within narrow functional groups, though even here the amount of the wage differential is more a part of a broader picture than is the rank order of jobs. Among clusters, the internal ties are stronger: (1) in relating a narrow group to a larger group of which it is a distinct part; (2) within roughly comparable skill bands; and (3) where closely comparable or identical jobs are found in several functional groups. As concerns comparisons and ties between broader clusters, the internal forces

grow weaker and the market ties, including historically established relationships, become stronger.

The Influence of Labor Cost and Broad Market Contours

The influence of labor cost is exerted primarily through the general level of wages. Within this context, jobs vary in their labor-cost significance. Jobs must be considered as to both their cost and wage relationship.

The general level of wages may be commonly associated with a fairly well-defined modal group of "production" employees and jobs. In manufacturing it consists frequently of a group of semi-skilled machine operators, assemblers, and other workers of this type. While for any one job within this skill band there is room for debate and adjustment without meaningful cost significance, total labor cost is fixed in large measure by the level of this band of rates. In other wage structures, the general level and modal group are associated with certain skilled jobs. In a printing establishment recently studied, the modal group and general level are clearly formed by the journeyman rates for the various crafts. Some structures may be bimodal and, indeed, some may have a single occupational rate as the key point in the general level. The general level is analytically related to the modal employee group and the concentration of labor cost. Wage-structure relationships are built around this central cost point.

Without exploring the ramifications of labor cost, it is clear that some industries and some firms are more confined by labor cost than are others. We recognize for industries and segments of industries the influence of differences in rate of expansion, variations in the proportion of labor to total cost, the degree of price competition in the product market, the greater or lesser strategic influence of labor cost within the product competition framework, and other factors.

Each firm is related by labor cost to a product and industry reference. Within any industry, the position of each firm varies; though there appears to be greater opportunity for independence in some industries than in others. However, in all industries some firms gain leadership positions by marketing performance, product and methods research and innovation, factory efficiency, and other ways. This leadership creates cost latitude within which they may respond to the labor market. While this side of the coin is a "permissive" factor, frequently allowing a favorable position in the local labor market, the reverse of the coin is not. Firms in an adverse position within their industry, particularly in industries tied by competitive cost to a low general level of wages, are frequently forced into an adverse labor-market position. These forced differences in the general level of wages override in large measure the weaker equaliz-

ing tendencies for most particular job rates. Broad differences within a rate band for a job can commonly be associated with general-level differentials of this character.

Aware as we are of the historical pattern of drawing industrial labor from agriculture, the complexity of the industrial wage structure must be imposed in detail upon the degree of industrialization of different areas. Superimpose upon various degrees of industrialization the factors influencing location of particular industries, historical and present, and the pattern of wage differentials among industries, national and local. Such diverse forces create the local labor markets with their steel cities, textile towns, and diversified but particularized metropolitan areas.

These broad contours are not the subject of this chapter, but they form the perspective from which one must view the "imperfect" market for truck drivers with its varied rates—the rate of the large oil company, the coal and oil wholesalers and retailers, the local warehouse, the large milk dealer, the beer concern, the soft drink company, the over-the-road rate, and so forth—and its differences in job content, cost significance, and industrial economics. These rate differences result predominately from "general level" rather than from "imperfect occupational" differentials.

As a different example, what do we mean by the market rate for typists in the city of Hartford? There are insurance companies in which this rate is part of the central core of the general rate structure; there are also financial institutions, retail and wholesale offices, and diversified manufacturing industries, with a heavy metal-trades concentration overlaid with a large airplane-engine manufacturing concern. The level of abstraction required to bring these many influences into a single rate (recognizing only differences in job content) is so extreme as to be quite misleading in the light of the total interplay of forces.

How can one put complex patterns into somewhat generalized form? It certainly is not labor cost that sets the rate for typists in a manufacturing firm. The rate could be doubled or tripled with no meaningful impact. The cost influence of all the office rates in such a firm becomes a significant but, typically, not a dominant consideration. The firm adapts its rate structure for office jobs to its general level of factory jobs and to the community pattern for office jobs. This adaptation may pull office rates down from a high level of factory rates or up from a low level of such rates. Each individual rate is part of a structure and held within tolerance limits within that structure. Substructures must be considered as being adapted to both the modal level of production rates and to the appropriate labor market from a cost and wage-relationship point of view.

As a major point in this labor-cost context, the "general level" has been associated, relative to the rate structure, with the modal group of produc-

tion or factory employees. Latitude for wage adjustment for other groups needs to be viewed, in part, as a permissive degree of cost freedom not possible with respect to this central core.

Related to this discussion are some points connected with the broad problem of compression in rate structures and the narrowing of percentage skill differentials. In part this problem involves very general changes in the composition of the labor supply and the character of technological advance. In part it involves price and wage movements and the degree of inflation. But compression can also be seen in diverse wage movements among groups of jobs. General increases can be studied relative to special adjustments. For example, in a printing establishment general-level changes are essentially a skilled-level change, and special adjustments may be given to less skilled groups. More commonly, general changes have their primary impact on semiskilled jobs, and skilled groups may receive special adjustments. The main point is to note the group job character of the problem, as well as its complexity.

A WAGE-STRUCTURE EXAMPLE

The stubborn facts of actual wage structures rarely create a neat example of operative forces. However, an example in simple outline may add content to the points just discussed.

The example is that of a tanker fleet of an oil company. It has been selected partly because it was at hand and partly because it is sufficiently simple in nature to be described easily. A contrast will be made between a 1928 base (identical rates prevailed in 1928, 1929, and 1930, and again in 1934 and 1935) and the 1953 base.

Without going into the detailed background, some preliminary points are essential. The tanker fleet is part of an ocean-shipping contour. Though the fleet is owned by an oil company, wage movements in the oil industry are sharply distinct from wage movements in shipping. In the base years, American-flag shipping was approximately competitive with foreign-flag shipping. The war brought an extreme expansion in the American Merchant Marine which could hardly have been achieved without a considerable increase in the absolute and relative wage level in shipping. There was approximately a fivefold increase in the shipping wage level, while wages in manufacturing were increasing about half that amount. This relative increase is large in percentage terms, in part because of the low level of the original base. The exact significance of events may be debated, but the controlling wage influence shifted from that of foreign competitive cost to that of establishing attractive pay levels relative to shoreside employment.

During this period, the maritime unions became strong. Broken down

by coasts, ports, and crafts, there was strong competitive negotiation. "Parity" would be temporarily achieved only to be broken at some point by some group. A case may be made that bargaining power achieved an excessively high wage level. On the other hand, hourly rates reached approximate equality with roughly comparable shoreside employment, and higher "take-home" pay may have been required to recruit in the type of labor market which existed. Without attempting to pass judgment in a casual review, the general wage adjustments make considerable sense as a response to changed conditions.

In the postwar period, competitive factors are again controlling. American-flag labor cost is now so high relative to foreign-flag that the American Merchant Marine can exist only where protected by law. Employment has contracted drastically, and a major problem exists as to the future of the American Merchant Marine.¹²

The tanker wage structure is shown in the index scale for 1928 and 1953 on page 162, with the third-mate salary in each year set equal to 100. (Overtime in this instance has been built into the rates.)

In the tanker wage structure there are two broad clusters: licensed and unlicensed personnel. Within the licensed group, the greatest increase occurred for the third mate and third engineer—from an index of 100 to 423 in 1953. The master increased from 100 to 370. The unlicensed personnel increased typically from 100 to the 500–600 range; for ordinary seaman, showing the maximum percentage gain, rates rose from 100 in 1928 to 642 in 1953. While there has been "compression" in this rate structure, it reveals essentially a diverse movement between these two broad groups; the movement is less marked within each group.

Within the licensed group, the most closely knit narrower group includes the first, second, and third mates and the engineers. Social equality has been preserved within the "rival commands." Technology has changed for both the deck and engine departments, but it would take drastic, relative change to upset the equality between the officer groups. Note also how little compression there has been between first and third mates and engineers. Within the licensed group, the master and the chief engineer have fallen with respect to this basic, narrower licensed group.

Within the unlicensed group, note first that the steward has in fact kept in exact step with the licensed group, since he is a kind of off-cousin to the officer class. Within each of the departments—steward, engine, and deck—there has been no change in the rank order of jobs,

¹² Detailed statistical support for this greatly compressed account is to be found in a private-association study, *Industrial Relations in the Ocean Shipping Industry* (New York: Industrial Relations Counselors, March, 1953), made available to college libraries.

TABLE 1. COMPARATIVE TANKER WAGE STRUCTURE
1928 AND 1953*

<i>Licensed personnel</i>	1928	1953
Master	203	178
Chief engineer	180	168
First mate	127	122
Second mate	113	108
Third mate	100	100
First assistant engineer	127	122
Second assistant engineer	113	108
Third assistant engineer	100	100
<i>Unlicensed personnel</i>		
Steward's department		
Steward	83	83
Chief cook	73	69
Second cook	53	62
Messman	33	47
Engine department		
Oiler	48	59
Fireman	43	59
Wiper	38	48
Deck department		
Bosun	53	67
Able seaman	42	59
Ordinary seaman	32	48
Pumpman	60	75
Radio operator	70	95

* Third mate = 100.

although under the impact of changed technology the oiler and fireman are now equal.

Two jobs have gained markedly in relative standing: radio operator and pumpman. These jobs are semi-independent rates not closely integrated with the narrow group composed of ordinary seaman, able seaman, and bosun. The radio operator job is the most interesting. Here one might attribute the gain exclusively to relative bargaining strength within the industry. Also involved, however, was a wartime shortage of a specialized skill. Neither consideration can be neglected. Pumpman became an increasingly responsible job, primarily as a reflection of technology.

The engine department, though this opinion is not completely supported by the data, has lost ground in relation to the steward and deck departments. Certainly improved working conditions with vastly better ventilation and more automatic equipment are partly responsible for this. The lot of the "black gang" has constantly improved.

This wage structure is in fact more complex than the presentation shows. There have been differences between the "watch-standing" and "non-watch-standing" groups and a complex overtime world has been created. For this illustration, however, these complexities do not alter the basic facts presented. Also, this wage structure is quite removed, so far as structural influences are concerned, from labor-market pressures outside the industry. More so than many wage structures, it is a world of its own. In spite of this isolation, the general though special trend toward compression is in evidence, and outside forces have, in good part, been responsible for the radio operator shift.

The example illustrates significant job groups, both broad and narrow, and diverse wage movements among groups. It also shows minor alterations of job position within groups and some semi-independent job rates. The "common-sense" alignment of jobs within narrow groups in terms of their job content is obvious. Less obvious and less meaningful in this case are "key jobs," as the whole structure is quite simple compared with most. The two seamen rates, are, however, the most basic point in the unlicensed structure, as is the complex of mates and engineers in the licensed group. Finally, this structure is not the result of job evaluation. It has followed the interplay of extremely complex bargaining relationships. One might wonder how a "structure" could survive the array of piecemeal settlements in the industry. Yet the alterations over the years are far from drastic, and, on the whole, can be explained as a blend of external and internal changes.

THE MEANING AND SIGNIFICANCE OF JOB EVALUATION

In approaching job evaluation here, the primary question is the relation of the evaluation process to the internal and external wage forces under discussion.

Job evaluation is not a rigid, objective, analytical procedure. Neither is it a meaningless process of rationalization. If a group of people with reasonable knowledge of certain jobs rate them, for example, on the basis of minimum required training and experience, there will be frequent small differences of opinion, some major differences as well, but also a high degree of general agreement. The application of group judgment through the rating process normally produces an improved rate structure, but extreme attitudes as to the accuracy of rating are difficult to defend.

Job evaluation must produce acceptable results. The results may be judged from two levels: wage relationships among key jobs or relationships within clusters. As to the first, job evaluation is tested by the degree of correlation achieved between points for key jobs and accepted wage relationships among the jobs. If this correlation does not work out in a

reasonably satisfactory way, weights and points have to be adjusted. If the correlation is satisfactory as a general relationship, some few jobs may still present a problem. Suppose a key job with an agreed-upon rate falls some distance away from the line of relationship between points and rates. Which is to give way, the points for the job or the agreed rate? Neither can be regarded as the supreme standard, and judgment is likely to result in some jobs being dropped as key jobs, where points are accepted as controlling, and in other jobs being rescored where the evaluation is thought to be less satisfactory than the agreed rate. There is nothing wrong with this kind of trial-and-error testing; job evaluation does not automatically resolve debatable relationships among key jobs, particularly when there is a conflict between internal standards and external comparisons or when strongly held traditional relationships exist.

Within narrow groups, gross disturbance of existing relationships is not likely to be found. Creating a simplified system of labor grades, with one wage rate or rate range for each labor grade, gives rise to many small wage changes as part of the simplification process, but the rank order of job placement within narrow functional groups will not typically be changed significantly, except for some small proportion of out-of-line rates. These out-of-line rates are most frequently associated with past technological change of a "de-skilling" character. They may also result from overly successful grievance adjustments or from poor judgment in decentralized wage administration.¹³

In reviewing the results of a typical job evaluation, one is likely to find some major changes in relations among key jobs and clusters: day workers may advance substantially relative to incentive workers; skilled groups, such as maintenance, may gain relative to the semiskilled; particular "low-wage" departments may increase in relative position. Within narrow groups, most past relationships will remain, with a minority of clear-cut out-of-line rates being meaningfully corrected. Also, with the many small simplification wage changes, jobs may go up or down slightly and, in process, achieve a somewhat more consistent placement, particularly with respect to the degree of wage recognition given to unfavorable working conditions.

What significant points for wage determination can one draw from the practice of job evaluation? The following may be singled out:

1. Job evaluation was created as an administrative response to a social environment allowing freer union and employee criticism. In this environment authority and secrecy of rates no longer held criticism in check, and piecemeal adjustments of rates provided no lasting solution. Thus stand-

¹³ The remarks in this paragraph do not imply a high order of accuracy in job placement. Reasonable men can frequently disagree within a range of plus or minus one labor grade.

ards and policies for the wage structure as a whole had to be developed to meet the changed social environment.

2. Job evaluation probably strengthened and broadened the influence of internal comparison. In part this may have produced an overemphasis on logical relationships. In part it reflected the union representatives' enlarged scope of interest, as contrasted with employee feelings of injustice, and introduced the "over-all" point of view of the wage specialist. In particular cases job evaluation has been part and parcel of the process of removing interplant differentials in multiplant firms and geographical differentials within an industry.

3. Job evaluation can and typically does accomplish a reasonable adaptation to internal and external forces at the time it is introduced. Can this adaptation remain appropriate over a period of time? There appears to be no general answer to this question, but it should be examined in terms of the relationships among and within clusters.

As to the relationships among clusters, the answer to our question will depend upon the particular economic and labor relations environment of the plant, changes in that environment, and upon the particular type of adjustments that are made to the environment. Suppose, for example, that in a semiskilled wage structure with a high concentration of employees in the lowest labor grades, general cent-per-hour wage increases are given in an amount determined appropriate for semiskilled employees but that, in process, the skilled employees suffer a relative decline in comparative differential in the labor market. Such a process could create a strain upon the evaluation plan leading to its partial abandonment. There are obviously great differences in various local economic environments and, over any postulated period of years, changes in an environment may be mild or quite drastic. An evaluation plan, however, cannot logically be presumed to be immune from whatever changes do in fact occur.

Within clusters, the stability of an evaluation plan over a period of time depends upon the administrative principles adopted, upon the degree of their genuine acceptance by employees, possibly upon the character of the plan being used, and upon the impact of process and product changes upon job content. Interesting questions, which cannot be dogmatically answered, arise in this area. The frequency, scope, and nature of technological change as associated with a particular plan and its administration can lead to continued acceptance of revised job relationships, to a succession of reevaluations, or to demoralization of the entire plan.

The initial introduction of a plan, even though well executed in the sense of building morale rather than creating a social revolution, cannot be assumed to continue without some degree of adaptation through administration and revision. This statement does not imply the doom of evaluation; it emphasizes continued study to determine the most appro-

priate administration and the type of revision necessary in the light of particular internal and external changes influencing wage relationships.

On the whole, job evaluation appears to reflect—in its introduction, in its problems and adaptations, and by its absence—the wage forces described in this chapter. In its formal approach, evaluation does not recognize the substructure character of wage relationship; it hides it by the administrative grouping of jobs into labor grades. But under the surface, the jigsaw puzzle of relating job groups is involved. Internal relationships can be proclaimed as primary wage policy in certain wage environments, whereas by contrast such a policy in other areas results in rough sailing. Adjustments over a period of time require study to clarify the kind of adaptations which are developing.

INCENTIVE-PAY METHODS

A blend of internal and external forces within and among job groups, as discussed earlier, exists with any method of payment. Incentive or piece-rate payment complicates these relationships by bringing into the payment area considerations affecting: (1) equal earning opportunity for two or more employees on the same job when there are two or more production standards or piece rates for different tasks performed on a single job; (2) equal earning opportunity for employees on two or more incentive or piece-rate jobs relative to evaluated or otherwise determined hourly base rates for the jobs; and (3) equitable earnings-effort relationships for hourly paid employees as a group compared with incentive employees. In addition to these specific points, method of payment demands some consideration of broader questions dealing with the relative and absolute performance of individuals, particularly the effort dimension of compensation and labor cost.

The performance of individuals and groups depends upon motivational factors of psychological and sociological derivation, upon physiological differences, upon technical methods of and differences in production, and upon managerial procedures and capacities. The facets of worker efficiency go far beyond the scope of this chapter, but four minimum points should be made.

First, method of pay creates no black and white situation. A change under day-work performance for a large unionized company was reported to have been as follows: 65 per cent of time-study standards in 1948; 94 per cent of time-study standards in 1951; and, in 1954, 10 per cent above time-study standards which, in turn, were 10 per cent tighter than in 1951. In a second example, a company converted from one incentive plan to a second incentive plan with a 6 per cent increase in earnings and a 30 per cent increase in worker efficiency. In still a third example, a

union successfully struck for the removal of a wage-incentive plan, the company after a short period of adjustment being most surprised to find lower total unit costs under day work than under incentive, and in a sequel the union threatened to strike for the reintroduction of the incentive and met strong company resistance. If some x effort level—measurable, predictable, and normal—existed for all day-work jobs and some y effort factor could be equated with incentive performance, simple analysis might follow. Fortunately, individuals and their environments are not so drab, and we find wide variations, both individual and group, for day workers and for incentive workers. Some incentive plants remind one, in general tone, of Old Sam making bassoons, and some day-work plants show a high tempo.

Second, broad differences in productive processes limit the application and change the meaning of incentive payment. Incentive is typically associated with a short-cycle, repetitive, standardized, worker-paced type of operation. As we move to longer-cycle, less repetitive, less standardized, and more or less machine-paced jobs, incentive can only have a more qualified kind of application. In process industries, and some others, worker efficiency, while very meaningful, rarely lends itself to incentive compensation. Incentive pay in a shoe shop, in a textile mill, and upon an open hearth are different brands of compensation. These broad differences in production processes point up the difficulty of attaining a common denominator for the term "worker efficiency." They also raise the question as to whether there is a general drift in technological advance which is, at least in part, outmoding incentive pay and changing its character. For example, do piece rates have the same meaning today in a glass plant that they did under an earlier technology? While it is common to recognize that incentive payment is appropriate and possible only in certain technical environments, it is less common to recognize that differences in machine processes create quite different kinds of incentive applications.

Third, management opportunities, methods, and capacities are far from uniform in their effects upon worker efficiency. Consider the impact of the trend of sales, growth or decline; the seasonal pattern of production, stability or instability; the regularity of the daily production schedule; the integration of the production schedule with employment requirements; the control of the daily flow of production; methods engineering; the setting of production standards; and, finally, the industrial relations quality of management performance. While these factors are of obvious significance, they deserve emphasis. Dramatic differences in worker efficiency can follow a change in the ownership of a plant or in its management policies or personnel.

Finally, motivational variations among workers and unions have di-

mensions over and beyond the management influences noted above. The degree of harmony or conflict, open or repressed, whatever may be the causes, is clearly reflected in quality and quantity of work. Putting all these various considerations together should certainly give weight to the first point, i.e., that worker performance is not uniquely determined by method of payment.

Let us return now to the three wage-relationship considerations previously noted: (1) equal earning opportunity on the same job, (2) on various jobs, and (3) the earning-effort variable for day workers and incentive workers. The first two points primarily hinge upon the consistency with which production standards can be set. This problem is most closely felt by a group of workers on a single job, who are particularly concerned with consistency among the various production standards for the different tasks they perform. Without debating the degree of accuracy implicit in the standard-setting procedure, common observation shows that mixtures of tight and loose standards are ordinarily found. Workers frequently create ways of living together to adjust to these differences, such as passing the buck and so dividing the work, or seniority choices in the distribution of work. It appears quite impossible to set perfectly consistent standards, and inconsistency in this regard becomes a common source of wage grievances. This same problem of consistency as to various related jobs not only leads to job-rate wage grievances but also creates a new dimension in worker preference for various jobs.

Consistency in standards among jobs is complicated also by differences in process. A group of girls on a short-cycle, worker-paced operation were expected to earn 25 per cent above base. They were modestly above this level, in fact. Next in line were two-man teams of molders operating batteries of longer-cycle and largely process-controlled machines. Maximum machine potential allowed only a 12 per cent incentive yield, and process times were such that the battery could not be increased. All incentives were supposed to yield 25 per cent; so, as a compromise, the evaluated base rate for the molding job was increased, not because of its job content, but to offset the dilemma of the incentive yield. No matter how they are handled, process differences can lead to charges of discrimination.

Under wage incentives, the question of earnings opportunities on the same job and on different jobs invariably involves differences of opinion as to whether high or low earnings represent abnormal standards or abnormal effort. Judgments and decisions are formed and made in this more complex, two-dimensional wage environment. Administrative procedures can partially, but only partially, separate relative wage decisions from relative production-standard decisions. Evaluation of jobs is harder to

maintain, and evaluation can lose its meaning when there are significant differences in earning opportunities among jobs. The range of indeterminacy in setting standards considerably overlaps meaningful wage-rate discriminations.¹⁴

The problem of the wage relationship between incentive pay and day-work rates is a complex area in which it is difficult to generalize. In a "rationalized" wage structure, "normal" incentive yield may be set, for example, at 30 per cent above evaluated base rates, which, in turn, set the level of pay for day workers. A simple but debatable assumption is that normal incentive effort is 30 per cent, in our example, above day-work effort. Various companies, however, have various normal levels. Examples which come to mind are respectively, 16, 20, 25, 30, 33½, and 40 per cent as normal yields, but there has been some tendency, perhaps, to concentrate at about 30 per cent.

Do these different normal levels reflect, in fact, different effort levels? It is very doubtful that they do. The normal incentive level is more nearly a wage decision than a production-standard decision. For example, two competing companies with substantially identical base rates operate, respectively, on a 16 and 33 per cent normal incentive. The incentive production level, in so far as method of setting standards is concerned, appears quite comparable, and, in fact, normal incentive level may be tighter in the company with the lowest yield.

While differences in normal level are interesting, differences in actual average yield are far more significant. In one multiplant company, if we set the normal yield at 100, actual average yields range from slightly above 100 to about 150 in various plants, with little evidence of a central tendency. Do these variations in actual yield represent differences in worker performance or differences in tightness of standards? As a guess, the average worker performance is slightly better where average yields are lowest.

Clearly there can be no easy answers to the questions raised by these differences. Attitudes of day workers will be molded by their judgment of relative effort and relative pay. If an actual incentive yield grows larger with increasing laxity of incentive standards, day workers can obviously become dissatisfied. Even where actual yields are normal, the absence of incentive opportunity for day workers may produce wage grievances.

Another point related to this problem is that the practice of giving cent-per-hour wage increases has narrowed the percentage skill differential in relative base rates while incentive yields have maintained a fixed (and very frequently a growing) percentage incentive bonus. This has

¹⁴ A most challenging work is William Gomberg, *A Trade Union Analysis of Time Study*, 2d ed. (Englewood Cliffs, N.J.: Prentice-Hall, 1955).

aggravated the compression problem in incentive plants. It is not uncommon in this situation to find a drastic change over a period of time in the relative earnings of skilled maintenance workers and of semiskilled incentive workers. While on the one hand this illustrates that very different earning relationships are tolerable when dealing with different groups, on the other hand it points up a current source of marked dissatisfaction among skilled workers at the present time in many plants. Logically, it demonstrates the complexity of introducing and maintaining an effort differential within a wage structure.

No matter what the form of payment, the competitive and social importance of a "fair day's work" is inherent in wage determination. But so complex a variable cannot be incorporated into wage thinking by an oversimplified notion of a precise effort level associated with a particular method of pay.

COLLECTIVE BARGAINING AND THE WAGE STRUCTURE

In the absence of broader research, it is quite impossible to have a fixed opinion on the effect of collective bargaining upon internal wage structures. The patterns in the following instances seem significant:

1. Instances where managements have been led to adopt new and improved wage-structure policies and administrative procedures at the request of unions or to defend their position. In many areas, unions have created problems which in turn have led managements to avoid unrelated, decentralized decisions and to formulate general policies and administrative machinery to carry out these policies. This seems to be true frequently in the wage-structure area. Policies have then been modified through the process of collective bargaining with fairly good accommodation of management and union objectives.

There are differences in the extent to which policies have been created by managements acting unilaterally and by union initiation and pressure. But a process of adjustment and accommodation seems noticeable, particularly as unions become more interested in the administration of contracts in established collective-bargaining relationships.

In general these cases have led to what may be called "rationalized" wage structures. They often involve job-evaluation procedures and contract limitations on the right to bring wage grievances. Some represent a quite cooperative approach; others have larger elements of conflict.

2. Instances where collective bargaining has tended to preserve traditional wage-structure relationships. The influence of the union in these cases seems largely to be one of avoiding any change other than general wage increases. This path of least resistance seems to be built into some multicraft bargaining relationships by both employer and union groups.

3. Turbulent wage structures in which grievances are not regulated by accepted policies. Once a wage structure is subjected to frequent grievance adjustment, there appears temporarily to be no end to the process. This can become imbedded in local plant tradition and become a general tactic for gradual increases in the general level of wages. While this process seems more natural to early collective-bargaining relationships, some union-management relationships seem not to grow out of this perpetual, individual wage conflict.

These same types of contrasts can be made with respect to wage incentives and production standards. Unions provide an organized outlet for the particular desires of individual workers. If the union primarily lends strength to the wishes of individual workers and the management simply resists on the basis of pressure, unions can be the vehicle through which incentive plans grow less and less rational in policy and structure. On the other hand, management and union policies may intervene to bring control and accommodation reflecting more mature leadership.

It is very easy to overstereotype the impact of collective bargaining. Different wage-structure influences seem to be present in different collective-bargaining relationships, but allocating responsibility and discerning trends is not possible in the light of our present knowledge. As a broad total influence, collective bargaining appears to be associated with more logical wage-structure policies and improved wage-structure administration.

SUMMARY

The heavily descriptive material in this chapter was intended to create at least a loose analytical framework with respect to the nature and influence of internal comparison and external relationships. Perhaps, also, the impact of labor cost has been given some added structural perspective. In addition, some questions have been raised as to the wage significance of methods of payment. Collective bargaining has not been adequately discussed. Variations in union policies and variations in patterns of behavior in different collective-bargaining situations raise many difficult questions. Above all, the view has been emphasized that individual wage rates in particular plants must be analyzed, not as standing alone, but as part of a complex structural entity in a given economic and labor relations environment.

The simple outline of structural influences can be stated in this fashion. One office job, or any other job, cannot be paid at a rate anywhere within a diffuse range of rates found by a survey for that job in the local labor market. A much narrower range is typically established by the position of the job within its internal job cluster. As we move to wage

relationships among job clusters, the internal comparison narrows to a consideration of one or a few key jobs in the respective groups. At this point a question arises: How strong are the internal ties between these two groups? They may be quite strong or relatively weak. If strong, job-content comparison meshes the two groups. If they are weak, a wider range of internal tolerance is created.

External forces as a structural influence clearly vary with the economic situation and the labor relations environment. The basic peg points of structure—the effective minimum hiring rate, the level of the modal group of semi-skilled rates, the top skilled rates—are related to both structural and general-level considerations. In turn, the nature and extent of more particular external influences depend upon the general level of wages and upon the particular environment.

To what extent can the kind and range of structural wage forces discussed in this chapter be dignified by the term "wage theory"? Perhaps not to any great extent in a strict sense. On the other hand, the concept of the internal wage structure interlocks internal and external and general-level and particular wage-rate forces. It is not exclusively employment-oriented, in that administrative and wage-policy variables are implied and various patterns of collective-bargaining behavior are recognized. The problem does not seem to be that individual wage rates are indeterminate within a wide range but rather that the significant variables must be encompassed.

7. *The External Wage Structure*

The amended bylaws of Orwell's *Animal Farm* provided that all animals were equal, but that some were more equal than others. Similarly, the theme of this chapter is that while all wages are related at least statistically, some are more related than others.

Wage relationships consist of two types: equalities and differentials. Wage-structure analysis is largely a task of explaining and characterizing these phenomena. Why are the starting rates in two steel mills equal? Why do stationary engineers receive higher rates in breweries than in office buildings? For some purposes the equalities are more interesting, and for others the differentials. This depends on which appears most in need of explanation. If we assume that wages for a given grade of labor tend to be equal in a community, following some notion of one price clearing a competitive market, then an explanation is required when large divergencies are found in the wage rates of janitors in various plants and industries. If, on the other hand, we begin by minimizing the strength of competitive forces in the labor market, then a question is raised when all bricklayers are shown to receive an identical rate. Generally, it is the unexpected and seemingly incongruous situation which calls for an answer.

Historically, the thinking of economists about the wage structure has been largely addressed to explaining differentials. In recent years, however, a larger share of attention has been paid to equalities. This shift in emphasis results from changing assumptions as to what is normally to be expected.

This chapter deals with wage-rate relationships as seen by employers and unions who are called on to make particular wage decisions. These are not always the same relationships that are important in explaining long-run or general movements in the wage structure. It is well known, for example, that increases in productivity are the central factor in long-run movements of the real-wage level and that they significantly affect wage differentials between industries. As an explicit element in partic-

ular decisions, on the other hand, productivity is only of secondary importance.

In analyzing such decisions, the student of wages has one foot in general economic theory and one foot in labor-management relations. This is particularly true of the study of external wage structure: the broad outlines are governed by market forces, but the range of administrative latitude permitting alternative choices is considerable. This discussion will be devoted primarily to explaining the rationale of particular decisions within the area of discretion. As indicated in the Preface and in the chapter by George Taylor, much of the explanation is to be found in "the conditions of the employer-employee relationship" and in the collective-bargaining process.

CONCEPT OF THE WAGE STRUCTURE

The concept of the wage structure is not without subtleties and complexities. In the first place, wage structure has no independent reality, nor does it exist in a state of nature. It is an intellectual construct which is useful in thinking about wages and arriving at decisions about them. Economic behavior in general is too various and disorganized to deal with in raw form and needs to be ordered and simplified before much can be said of it. Organizing concepts are therefore indispensable and are free from objection so long as they are not mistaken for veritable entities.

The reality of wages is that millions of employees each receive some rate of pay and accumulate certain earnings per hour, per week, and per annum. For some purposes it is useful to conceive of a general wage level, and for other purposes it is necessary to envisage a structure of wages; but we should not suppose that either one really exists, any more than a marginal product, a competitive price, or a natural rate of interest really exists.

Significant Relationships

Although every wage rate is related to every other from a strictly statistical standpoint, some relationships are more significant than others. Suppose that a window washer in St. Louis earns \$1 per hour and that a cotton picker in the San Joaquin Valley of California picks 250 pounds in 10 hours, receives \$4 per hundredweight, and therefore averages \$1 per hour. Here is a statistical equality between the wages of the window washer and the cotton picker, but one which creates little excitement because it is fortuitous and meaningless. Suppose, on the other hand, that printing pressmen employed on New York and Chicago newspapers each receive \$2.65 per hour. Here is another statistical equality, but one which is arresting and important. Both of these equalities are part of the wage structure; yet the second clearly shows more "relatedness" than the first.

A relationship is important for one or both of two reasons: first, because it has significant economic effects; and second, because it has considerable influence in the making of wage decisions. A large disparity between the wage rates in Northern and Southern cotton mills may cause a shift of orders and production to the South. It may therefore be the weightiest factor in a decision to reduce the rates in the Northern mills. A 2-cent differential between the wage increases granted to AFL and CIO unions at the Oak Ridge atomic energy installation may impel one of the unions to go on strike. For this reason the differential would have to be eliminated in order to prevent an untenable situation.

Much is written of different "types" of relationships—intraindustry, interindustry, interarea, etc. These are conventional groupings of the innumerable relationships which are found in the industrial world. They may be thought of as the dimensions of the wage structure, or the lines along which a wage rate is related to other rates. We might begin with a senior stenographer earning \$60 per week in the office of a small Los Angeles furniture factory. For one purpose or another, it might be important to compare this rate with that of the senior stenographer in a large Los Angeles furniture plant (intraindustry), or in the motion picture firms (interindustry), or in a small San Francisco furniture plant (geographical); or with the rate of a junior stenographer in the same plant (occupational); or with the rate of senior stenographers represented by a different union in the same industry (interunion).

To avoid misunderstanding, it would be emphasized again that these "types" of differentials are merely mental aids and not real phenomena. Often it is impossible to classify a differential as falling in one class or another or to factor out the respective contributions of the various bases of differentiation. We may know, for example, that a janitor receives an average of \$1.05 per hour in cotton textiles and \$1.80 in automobile manufacturing. We may associate this 75-cent disparity with differences in job content, geographical location, and the character of the two industries. The last-named factor may encompass differences in typical size of the firm, degree of competition in the product market, rate of growth and profitability. Thus we may regard the differential as the resultant of numerous forces, but nonetheless it is all one and the same differential.

Labor economists have often concerned themselves with the question of whether some differentials merely represent others in disguise. It is said, for instance, that the so-called sex differential is a statistical illusion reflecting the concentration of women in low-wage occupations. At the same time, certain occupational differentials are explained by the fact that some of the jobs are staffed with men and some with women. The alleged rural-urban differential is attributed to the fact that large plants are located in cities and many small plants are found in the countryside. But the differential between large and small plants is sometimes accounted for

by stating that the latter are frequently situated in rural areas, where surplus farm population is available. Similarly, are Southern wages low because low-wage industries are located there, or does the textile industry pay low wages because it is centered in the South?

These dilemmas cannot be resolved unequivocally and actually are not real; for every differential has its own set of causes, and these are not changed or affected by the labels which may be attached to them.

WAGE DECISIONS AND THE WAGE STRUCTURE

For practical purposes the distinction between internal and external wage structures is virtually synonymous with the distinction between intraplant and interplant structures. The terminology employed here has been chosen because it seems to dramatize certain differences between wage relationships in the two situations. These differences pertain to the degree of control over wage relationships enjoyed by the decision makers and to the relative importance of factors intrinsic or extraneous to the decision-making unit.

An internal wage structure is established within a single area of decision. The decision makers can apply formal criteria and utilize systematic procedures. They have it within their power to create, maintain, or revive some desired differentials; they can eliminate others by equalizing the wage rates. As E. Robert Livernash shows in Chapter 6, many of the principal considerations are interior to the unit. This is not to say, however, that the decision makers are insulated from exterior forces. The determination of "key rates" in particular is often governed by craft rates in the area, labor-market pressures and similar influences.

It is more difficult to characterize the external wage structure in these respects. Some external relationships are not the result of conscious or integrated decisions. Average wages are higher in the North than in the South, for example, but not because of any specific adjudication that this should be so. Similarly, there was a time when office workers received higher wages than lathe operators; today the positions are reversed. Once again no one has decided that the stenographer is less deserving than she used to be or that the lathe operator was relatively underpaid. The changing relationships between Northern wages as a whole and Southern wages as a whole is the resultant of separate sets of causes; likewise the changing relationship between clerical and manual wages.

Many specific external relationships, on the other hand, are deliberately fashioned. Some decision makers can control only one end of the relationship. For example, employers and union leaders in the electrical industry may decide to match wage increases awarded in the auto industry. They can follow the auto industry, but they cannot govern what

it will do. (But the auto decision makers may be influenced by the knowledge that the electrical industry will follow their lead; and the largest auto company has several plants in the electrical industry.)

The degree of control is further attenuated when several relationships are involved. A manufacturer may find that his local employer association is endeavoring to hold wage adjustments below 5 cents per hour; the major firms in his industry, who are located elsewhere, have renewed their contracts without change; while neighboring locals of his union, which operates throughout a broad jurisdiction, have received 10-cent increases. Try as he may, he cannot maintain all three connections simultaneously. At least two will necessarily be altered.

Some interplant relationships are encompassed within a single unit of decision, however, so that both ends of the relationship are under control. One example is found in the multiplant company which must decide whether or not to pay identical rates in its several establishments. Another example is the multiemployer or "industry-wide" bargaining agreement, which again may provide either for uniform or diversified wages. Strict adherence to logic might suggest that wage relationships between plants in the same company, or companies in the same multiemployer group, be classified as internal if subject to central determination. But notwithstanding this fact, there are sound reasons for regarding them as part of the external wage structure. It is customary to associate them with other interplant relationships for analytical and statistical purposes. Moreover, certain influences are active which are germane to interplant wage determination but not relevant in the development of an intraplant structure. Of these the most significant are diversities in local wage levels and disparities in technology and profit position as between plants and companies.

Level and Structures

Thus there are clear differences between the general wage level, the internal wage structure, and the external wage structure in their relation to wage decisions. These differences are as follows:

1. The general wage level in the United States is beyond the control of individuals, except perhaps control by government boards in periods of national emergency. In certain countries, such as Sweden, where bargaining procedures have become highly centralized, groups at the top of the pyramid are in a position to govern general wage movements. But in the United States not even the most important pattern-setting groups have any significant proportion of total employment within their own grasp. Admittedly, some bargaining decisions are more significant than would be indicated by the percentage of the labor force involved. But when all is said and done, there is no such thing as a nationwide pattern;

and as it will appear later, the pattern-setting decisions are strongly influenced by the trend of settlements at the time. For these reasons a theory of the general wage level must deal broadly with economic and institutional influences affecting wages in general. A grass-roots approach is entirely out of place for this kind of problem.

2. Internal wage structures, as already noted, are encompassed within a single area of decision and are within the control of decision makers. Therefore a theory of internal wage structures may address itself single-mindedly to the task of explaining the choices that have been made.

3. It is more difficult to characterize the external wage structure in this respect. The broad outlines of the external wage structure are often the product of uncoordinated decisions and the resultant of separate sets of causes. Thus the differentials between clerical and manual workers, Northern and Southern regions, or textile and steel industries have not been established by anybody in particular, but by decision makers in general. Some specific relationships, as pointed out in the previous section, are accidental and without any particular significance. But many are organically interrelated and consciously coordinated. They may be controlled at one end, as in the case of one industry following the lead of another, or at both ends, as in the case of a company with two establishments. In either case they are marked with "relatedness."

It is the nature of this "relatedness"—the extent and means of coordination—with which this chapter is largely concerned.

Putting it differently, external forces in the market determine the rough contours of the external wage structure, but they are ordinarily loose enough to leave a margin of choice. Within this margin employers and unions make their decisions as to desired relationships—to establish or eliminate a differential, to abandon or follow a leader, and so on.

It follows that a complete theory of the external wage structure must accomplish three tasks: (1) it must explain how the larger outlines of the wage structure, which are beyond the reach of individual decisions, are drawn; (2) it must account for the fact that a substantial range of discretion remains available; and (3) it must explain the decisions made by employers and unions within the range of discretion.

STATIC AND DYNAMIC ASPECTS OF THE WAGE STRUCTURE

Another complication is that the wage structure has both a static and a dynamic aspect. The static aspect consists of significant equalities and differentials at one point of time. The dynamic comprises relative movements over the course of time. These are clearly distinguishable matters. The question of why wages were higher in railroads than in coal mining as of 1935 is essentially different from the question of why coal-mining

wages have gone up more rapidly since 1935. The two aspects have not always been clearly distinguished in the literature, however, and it is sometimes difficult to know whether a writer is referring to comparative levels or to comparative movements.

Movement versus Level

Wage determination is probably a unique form of pricing in the degree of importance which is often attached to the movement as compared to the level. Very seldom do the parties have an occasion to establish a schedule of wages *de novo*. The opening of a new plant would furnish such an occasion; and perhaps the negotiation of a first contract in a formerly unorganized plant, since the new rates may be bargained with little or no reference to the previous nonunion rates. With these exceptions, the parties play their roles on a set stage: the changes in rates as well as the rates themselves are integrally involved. The negotiators generally communicate with each other in terms of change rather than level; the union refers to the change in announcing its gains to the membership; and the newspapers and reporting services emphasize the amount of change. It cannot be said in the abstract that change is more important than level, or vice versa; and this is not the place to analyze the concrete circumstances lending weight to one or the other. It is sufficiently clear, however, that the degree of movement is often a crucial consideration.

One of the traditional criteria of collective wage determination has been designated "the going rate," and one of the purposes of the trade union has been the establishment of what is called "the standard rate." In view of what has been said above, we should recognize "the going increase" as the touchstone in many cases and "the standard increase" as the union objective under many circumstances.

Measurement Problems

When comparative movements are important, it is necessary to measure them. Here we come face to face with one of the more subtle problems of wage analysis. Are comparative movements to be measured in cents per hour or in percentages? Wage rate A rises from 50 cents to 80 cents. Wage rate B advances from \$1 to \$1.40. Which has gone up the more? Has the differential between the two rates become narrower or wider? Should an arbitrator consider that workers receiving A or those receiving B have been more "underprivileged"? What should be the employer's response if the union seeks to increase or reduce the gap?

Of course, the arithmetical results can be characterized in either fashion. A's relative increase has been 60 per cent and B's has been 40 per cent. On the other hand, A's absolute increase has been 30 cents per hour and B's has been 40 cents. The percentage differential between the two

rates has dropped from 100 per cent to 75 per cent. The cents-per-hour differential has risen from 30 cents to 40 cents. When percentage increases are equal, the relative differential is maintained and the absolute differential is enhanced; but when cents-per-hour increases are equal, the absolute differential is maintained and the relative differential is reduced. All this is clear enough. But it provides no answer when a choice must be made, as it often must.

An appealing argument can be made out that the percentage measurement is more significant. Such an argument would stress that the monetary unit is only a *numeraire* and that the relations are what count. Returning to our example, suppose the cost of living had advanced 50 per cent. A's real wages have improved, while B's have deteriorated. Under these circumstances, it would not seem to make sense if one should assert that B's wage rate had gone up faster. Or suppose that all values in the economy were simultaneously doubled. Cents-per-hour wage differentials would also be doubled while percentage differentials would be unaffected. Since the real position of all individuals would be unaltered, it would seem illogical to claim that their comparative position had changed.

But no matter how persuasive these logical exercises, the fact remains that exclusive reliance on the percentage method often yields unsatisfactory results. In selecting an appropriate measure of comparative change, particular attention must be paid to the character of the underlying movement which has taken place during the period involved. If percentage differentials in general have been maintained during a given period, then the percentage basis is more suitable for comparing particular movements. If percentage differentials have been continuously compressed, then a comparison of cents-per-hour changes may be more revealing and significant. Between 1933 and 1946, for example, absolute increases were much more nearly uniform between industries than were percentage increases, and the magnitude of absolute change was not related in any systematic way to the original level. For this reason comparisons covering this period are more meaningful if stated in terms of cents-per-hour changes.

Admittedly, the degree of percentage compression between 1933 and 1946 was unusual. A more common development is that percentage differentials decline while cents-per-hour differentials spread apart over the course of time. This was true in the period from 1946 to 1952 (according to an unpublished study made by the author) as well as during the thirty-six-year period studied by Paul Douglas in *Real Wages in the United States*.¹ It seems to show up in current studies relating to changes

¹ Paul H. Douglas, *Real Wages in the United States, 1890-1926* (Boston: Houghton Mifflin, 1930).

in the wage structure of European countries. Under these circumstances both types of measurement are strongly affected by the original level of wages. A low-wage occupation, area, or industry will tend to show larger percentage increases and smaller cents-per-hour increases than a high-wage occupation, area, or industry; and allowance should be made for this general tendency when particular comparisons are made.

That percentage differentials are inclined to narrow and cents-per-hour differentials to spread apart is not being stated as a natural law but only as an empirical observation of what appears to be true more often than not. No good explanation suggests itself, but the tendency is there nonetheless. Failure to recognize it is responsible for a great many pointless arguments and comparisons in collective bargaining and wage arbitration. It also accounts for the fact that so many studies of movements in the wage structure arrive at inconclusive results.

The problem of selecting a statistical norm must be faced in governmental wage regulation as well as in private wage determination. War-time wage-stabilization policies state maximum increases in percentage terms; but if there is an underlying current of equal cents-per-hour increases, strong pressure will be felt at the low end of the scale. During World War II, for example, general wage increases were supposed to be limited to 15 per cent of the January, 1941, level. This resulted in actual increases averaging as little as 6 cents per hour in some low-wage activities and as much as 15 cents per hour in certain high-wage industries. The parties did not regard these as "equal," and the end result was that the low-wage industries partook heavily of other policies affording further increases on different grounds. Statistics show that there was a pronounced tendency toward equal cents-per-hour movements during the period from 1942 to 1946.

The foregoing discussion has not been intended to "solve" the problem of relative versus absolute measures of wage change. Basically, the problem is insoluble because neither measure is satisfactory for all purposes. What is important is that one be conscious of what he is measuring and aware of what underlying wage movements are in progress.

WAGE RATES AND FRINGE BENEFITS

Further complications arise when we ask what is meant by "wages" in connection with the structure of wages. There are numerous questions involved, but the most interesting and important is whether fringe benefits are included along with wage rates or segregated for separate comparison. This question is of the greatest practical importance in contract negotiation, arbitration, and government-control programs. Recurrently in arbitration cases, for example, the union will seek to justify its generous

wage demand by showing that its members do not enjoy some of the standard fringe benefits. Employers frequently argue that a comparative deficiency in wage levels can be explained and exonerated by a comparative surplus in fringes. Emergency wage-control agencies must decide whether to impose a single "ceiling" for wage and fringe benefits combined or to set separate standards and limits instead.

No categorical answer can be given to the question of whether wage comparisons should include or exclude fringes. "Relatedness" is a social rather than a natural phenomenon and depends on the thought patterns of labor and management officials and others who participate in the wage-setting process.

The issue is really whether wages and fringes are substitutable for each other as part of the aggregate "price of labor" and as components of a total "package" adjustment. In principle it might be argued that they are. Clearly the fringes *are* part of the price of labor: they are forms of income to the worker and elements of cost to the employer. Although sometimes difficult to evaluate, they make up a significant and growing proportion of the employer's labor bill, often exceeding 20 or 25 per cent.² Certainly the individual worker takes the fringe benefits into account in weighing the relative attractiveness of jobs, and increasingly as he becomes older.³ Just as he may select the lower-paid job because of steadier employment opportunity, he may also be influenced by a generous vacation allowance or an advantageous retirement plan. Finally, wages and fringes are negotiated together, and great attention is usually paid to the size of the total package.

Wage differentials are sometimes justified by countervailing fringe differentials when otherwise they would be deemed inequitable. For instance, longshoremen receive a lower hourly rate on the West Coast than on the East Coast. Overtime begins after 8 hours on the West Coast, however, and an 8-hour day is prescribed, so that the daily earnings of the West Coast longshoreman approximate those of the East Coast worker. And in a number of public jurisdictions in California, construction unions have accepted wage rates 11 or 12 per cent below what is prevailing, for the reason that exceptional fringe benefits, beyond those provided in the area contracts, are available. The unions at the University of California at Berkeley, however (influenced perhaps by some of the literature produced there) have insisted on maintaining the standard rate at the expense of sacrificing the extra fringe benefits.

² See *Fringe Benefits, 1953* (Chamber of Commerce of the United States, 1954); A. M. Fisher and J. F. Chapman, "Big Costs of Little Fringes," *Harvard Business Review*, vol. 32, (September–October, 1954), pp. 35–44.

³ Richard A. Lester, *Hiring Practices and Labor Competition* (Princeton, N.J.: Princeton University Press, 1954).

Thus a respectable argument can be made on behalf of an inclusive concept of "wage" for comparative purposes; and examples of substitution between wages and fringes are not lacking. Nevertheless there are important ways in which wages and fringes are not strictly equivalent.

First, a union is concerned not only with the size of a bargaining package but also with its components. An 8-cent package consisting of 6 cents in wages and 2 cents in insurance might be more acceptable than a 10-cent package of 4 cents in wages and 6 cents in insurance. Similarly, an employer may feel easier about granting a wage increase than granting two extra holidays, in the belief that he would find it more difficult to withdraw fringe benefits and because he is reluctant to cause embarrassment to other employers in the form of holiday demands.

A few cents per hour may "look better" to workers in the form of a fringe benefit than as an addition to the hourly rate. A worker already receiving \$2.25 per hour, for example, will not become unduly excited by the announcement of a 5-cent wage increase; but he will regard the adoption of a new retirement plan or health and welfare program as a substantial and impressive development. Furthermore, both parties have a motive to exaggerate the cents-per-hour cost of fringe adjustments in reporting the results of their bargaining.

Frequently more is involved than appearances. Assume that an employer and a union agree, during their 1956 negotiations, that 6 cents per man-hour will go into a fund to finance the payment of supplementary unemployment compensation (guaranteed wages). More important than the amount involved is acceptance of the principle. The employer has assumed a new responsibility which may eventually cost considerably more. Probably he would have paid more than 6 cents to avoid embracing the principle of guaranteed wages. Certainly the union would be unwilling to trade the agreement for merely 6 cents on the wage rate.

There are other circumstances where the cost of fringe benefits to the employer is not commensurate with their meaning to the employee. The most common circumstance is that insurance is made available to the employee which he could not obtain as an individual except at a much greater monetary cost. Even the imperfect health and welfare plans which are currently in effect are much more advantageous than the available individual health insurance policies. These considerations tend to show that wages and fringes are separate matters not to be mixed in the same bowl.

Decision of Wage Stabilization Board

The issue of whether wage and fringe increases can be lumped together for comparative purposes confronted the Wage Stabilization Board during the Korean War. The Board decided in effect that they

could not. It declined to issue a regulation proposed by the Director of Economic Stabilization, under which a "ceiling," or total allowance, would have been prescribed for all increases in compensation without distinction as to type. Instead, the Board decided that wages and fringes must be handled disjunctively, and further that each fringe must be regulated separately. Standards were established for health and welfare plans and for industrial pensions, in addition to a general standard of prevailing practice for each of the other fringes taken by itself.

To some extent this decision was motivated by the difficulty of pricing certain fringe benefits in cents per hour. Many employers and unions preferred to have separate policies because they believed the degree of control would be less severe than it would be if an over-all limit were prescribed. But a more fundamental implication was that wages and fringes were *not* equivalent. Let us assume that a firm was entitled to 5 cents per hour under the Board's cost-of-living formula and that four paid holidays, in addition to the six already in effect, could have been purchased for 5 cents per hour. It was not a matter of indifference whether the 5 cents was applied toward wages or holidays. In the latter case, the employees would still have believed they were 5 cents short on wages, while the additional holidays would have injected a powerful stimulus into the "holiday" structure of the area, the industry, the union, and related unions.

Thus the Board's task was not to stabilize a wage-and-fringe structure; for (speaking broadly) there is no such thing. Rather it was to stabilize a wage structure and a series of separate fringe structures which are subject to separate comparisons.

Perhaps the most valid general statement on the point would be as follows: (1) within narrow limits, wages and fringes can be substituted for each other as components of a negotiated "package"; (2) there are certain unusual cases in which gross differences in fringe benefits are accepted as justification for compensating wage differences; and (3) basically, however, unions insist on a satisfactory wage rate *and* satisfactory fringes, and not merely on a satisfactory combination of the two. Therefore, although bargained together, wages and fringes are subject to separate comparisons. This state of affairs is somewhat analogous to the sale of a commodity: packaging and advertising will make up for deficiencies in quality to a restricted extent but will not substitute without limit for the desired qualities of the product itself.

THE RIGHT THEORY IN THE RIGHT PLACE

In recent years, there has been no shortage of controversies over the "determinants" of the wage structure. How much help is the marginal-

productivity theory in explaining wage equalities and differentials? Can all the causes at work be usefully characterized as "supply" and "demand" factors? What about the supposed conflict between "economic" and "political" theories of wage determination? There has been much debate over these and similar issues, but no consensus has emerged.

Some of the smoke will clear if it is recognized that the contenders have been talking about different things. We have already had occasion to note that wage-structure analysis is carried on at three distinct levels. Thus there are large and general questions which no one can do much about: Why are wages low in agriculture as compared with manufacturing industries? There are small and specific questions which strike the theorist as rather scrubby: Why will a union strike rather than endure a 2-cent wage differential which is deemed inequitable? At one extreme, is it desirable that wage levels be raised in newly industrialized societies? At the other extreme, is it advisable for the auto industry to grant an extra nickel to the skilled trades? Strange bedfellows indeed; and it would not be surprising if their intellectual nightshirts were dissimilar. Neither is it surprising that some ideas and concepts are suitable on one level of analysis and entirely out of place on another.

Marginal Productivity

There is nothing wrong with the marginal-productivity theory in its place. It is a theory of labor demand related to resource ratios and to an existing state of technology. It encompasses adequately the causal influences which account in a broad and general way for gross differences between widely separated points in time and space and between major sectors of the economy. Why are real wages several times higher in 1954 than in 1854? Why are Americans paid so much more than Italians? Why are wage rates relatively low in rural agricultural areas? Questions of this type were probably uppermost in the minds of the authors of the marginal-productivity doctrine, and are readily answered by it once immobilities of supply are admitted.

It is true that average productivity is handier as a common-sense explanation, although less elegant and rigorous theoretically. It is likewise true, as Hamilton and May and Samuelson have recognized, that marginal productivity is a kind of intellectual Mother Hubbard or blanket designation for numerous specific factors affecting labor demand, some amenable to human control and others not amenable. Nonetheless, no valid objection can be made if the doctrine is used to answer the right questions.

It is often used for the wrong questions, however. One falls victim to the fallacy of misplaced concreteness when he resorts to marginal productivity in order to show how a specific flesh-and-blood manufacturer determines his wage rate and level of employment. Students are never

persuaded by such a showing, aside from those who go on to become economists themselves, and in truth it is not persuasive. Too much is omitted from the picture, and the assumed relationships do not really operate at that level. Similarly, the marginal-productivity doctrine is helpful in predicting what would happen if a minimum wage of \$1.25 per hour were established in Puerto Rico, but does not really tell us whether the Pennsylvania Railroad will lay off workers as a result of a 10-cent hourly wage increase. To be applicable for this type of problem, the doctrine has to be reformulated in a manner which is so tautological as to leave nothing more than a formal structure of definitions. When this is done, no businessman can fail to equalize marginal net revenue product with marginal labor cost, just as no consumer can fail to maximize satisfaction under the contemporary theory of marginal utility.

Supply and Demand

Another source of confusion is that the terms "labor supply" and "labor demand" are not always used in the same sense. Sometimes they are employed technically to represent a functional relationship between price and quantity. Thus the opening of the border between the United States and Mexico would augment the "supply" of Mexican farm workers: more would be available at any given wage rate. Sometimes, however, these terms are employed loosely to include numerous nonquantitative elements affecting the conditions under which workers are available and jobs are offered. Thus an employer and a union may agree to increase the differential between production machinists and toolmakers for the following reasons: to prevent an unauthorized strike in the toolroom, to neutralize the efforts of a predatory craft union, to keep the toolmakers happy, to carry out election promises, and so on. There may be no serious likelihood that toolmakers will resign, and no reason to employ any more than are already on the payroll. Should we offer a supply-and-demand explanation for the increased differential? This can easily be done, of course, but only at the expense of robbing these terms of their essential quantitative content. Once again price-quantity functions are likely to become empty and formal when nonquantitative elements are incorporated by definition.

Supply and demand should be used precisely in their technical sense. In this sense they explain the historical development of the wage structure and its rough outlines today. Other phenomena are often found at the level of specific decision, and these are best called by their own names.

Economic and Political Influences

This brings us to the distinction between "economic" (or "natural," or "impersonal," or "market") forces in wage determination, and "politi-

cal" (or "institutional," or "structural," or "power") influences. Here a personal note creeps in. It is the fate of almost every writer that eventually most of his ideas boil off, leaving only a residual cliché. Even an important scholar like Hoxie is now known principally for a faulty classification of unions while his better ideas are largely forgotten. The present writer is sometimes cited or indicted for having invented a "political theory of wages." Actually, as I made plain at the time, there was no intention to present either a political or nonpolitical theory of wages, but merely to analyze money-wage decisions on the part of unions. Political relationships and pressures were stressed for the reason that economic influences had been dealt with more adequately by other writers.

A purely "political" theory of wages would of course be absurd, for it is clear that institutional pressures operate within a limited periphery. Not even the most inclusive and belligerent unionism could make Italian wages equal to those in England. No amount of coercive comparison could bring textile wages up to those in the steel industry, or enable a laundry driver to earn as much as a newspaper driver, however similar their job duties.

The margin of choice is wider in some cases than others, of course. A shoe factory in which labor cost is a highly strategic competitive factor, facing severe nonunion competition in a slow year, will have little elbow-room indeed. On the other hand, a major oil producer, enjoying a small labor-cost ratio and a large profit margin, can establish high wage rates, adopt every fringe benefit known to man, and invent a few new ones—all without feeling any noticeable pain. Most cases fall within these extremes: market forces determine the level of wages more or less loosely, leaving a limited but sizable range of discretion.

This much having been said, certain other propositions can be reaffirmed. Many interesting phenomena take place within the range of discretion. Bargains are accepted and refused, wage rates are equalized and differentiated, strikes are called and settled. To understand these phenomena is important for many purposes and requires an understanding of the trade union as a bargaining agency. The union is not a business enterprise, does not sell labor, and is not interested in maximizing the wage bill or any other quantity measured in dollars. Rather it is a political institution whose central objective is survival and growth as a part of the labor movement. Union wage decisions are vitally affected by the need to "deliver" at regular intervals, by conventional tests of performance, and by the insistent pressure of equitable comparison—all of which are sharpened by personal and organizational rivalry. Ordinarily the union does not concern itself with the "employment effect" of its decisions. (Important exceptions are dealt with below.) Most wage bargains are

struck above the lower limit of the margin of choice, at which the labor force would begin to dry up; and below the upper limit, at which serious economic consequences would set in.⁴ Convergence upon the upper limit is signalized by stubborn employer resistance more than by union solicitude over employment. Finally, unionism and collective bargaining have significantly modified the wage structure, although its main outlines are not subject to control.

CENTRIPETAL AND CENTRIFUGAL TENDENCIES IN WAGE DETERMINATION

It was pointed out previously that a full-blown theory of the external wage structure would have to accomplish three tasks. The first is to explain how the larger outlines of the wage structure, which are beyond the reach of individual decisions, are drawn. For this purpose, supply and demand in their full quantitative sense are entirely relevant. The analytical problem is to isolate the specific influences affecting the supply and demand for particular groups of workers and accounting for the wage variations which obtain. At this level, a wage differential is a residual or a statistical difference, and a wage equality is an accident. As Marshall stated, "Each of a hundred or more groups of workers has its own wage problem, its own set of special causes, natural and artificial, controlling the supply price, and limiting the number of its members; each has its own demand-price governed by the need that other agents of production have of its services."⁵ The analysis of various types of differentials in Woytinsky's *Employment and Wages in the United States* proceeds at this level.⁶

The second task is to account for the fact that supply and demand control particular wage rates only roughly or loosely, leaving a margin of choice in ordinary cases. The impediments to mobility and the weaknesses of competition in the labor market have been systematically de-

⁴In 1954, for example, a wage increase of 5 cents per hour (in addition to certain fringe improvements) was negotiated in the steel industry. Probably the union would have struck rather than accept 2 cents; probably management would have taken a strike rather than grant 10 cents. It cannot be shown, however, that a difference of a few cents in either direction would have affected employment, production, or profits to any large extent. Even if such a contention were advanced, the effects could certainly not be strained out from the effects of numerous other variables influencing employment, production, and profits. In other words, the bargaining range within which a settlement must be found is generally narrower than the margin of choice established by labor-market and product-market force.

⁵Alfred Marshall, *Principles of Economics*, 8th ed. (New York: St. Martin's, 1930), p. 533.

⁶W. S. Woytinsky and Associates, *Employment and Wages in the United States* (New York: Twentieth Century Fund, 1953).

scribed in recent years, particularly in the writings of Lester, Reynolds, and Myers and Shultz.⁷

Space will permit extended discussion only of the third problem, which is to explain the decisions made by employers and unions within the range of discretion. Here are the differentials and equalities which are willed into existence and do not merely happen. Why do the parties decide to maintain an existing differential as historically valid or to eliminate it as a gross inequity? Why do they choose to accept the leadership of another major producer or to strike off on their own? What is the true significance of the so-called "national patterns"? Why are there considerable wage variations between one region and another in the construction industry and not in the coal industry?

The wheel has turned full circle since Adam Smith's day. Then it was deemed important to explain why all workers did not receive the same wage; the theory of equal net advantage and the later doctrine of non-competing groups were addressed to that question. Today it is more interesting to inquire why some workers *do* receive the same wage as others. When all petroleum companies raise their prices simultaneously and to the same extent, they hold this to be the result of vigorous competition in the product market; but one suspects that a better explanation is available. In the same way, it is generally recognized that competitive forces in the labor market are not sufficiently strong to produce a single rate even for a single "grade" of labor.

It is true that a few employments are so rudimentary and unstructured that a single rate prevails even though no one has decreed that this must be so. Cleaning women in a metropolitan area employed casually by the day, cotton pickers in a particular county at a particular stage of the harvest, shoeshine boys operating around a railroad terminal—such groups are the salvation of the economics instructor who wishes to demonstrate the mechanics of a competitive labor market, but are impressive chiefly for their quaintness and singularity. Generally the single rate is a reliable token of combination rather than competition at work. Thus it is probably true that most of the remaining random-rated firms are nonunion (although the converse is certainly not correct). Local wage variations are greater in poorly organized communities, such as New Orleans and Dallas, than in centers of unionism, such as Detroit and Pittsburgh. Likewise intraindustry variations are greater in chemicals and furniture than in aircraft, rubber, and steel.

⁷See Richard A. Lester, "A Range Theory of Wage Differentials," *Industrial and Labor Relations Review*, vol. 5 (July, 1952), pp. 483-500; Lloyd G. Reynolds, *The Structure of Labor Markets* (New York: Harper, 1951); and Charles A. Myers and George P. Shultz, *The Dynamics of a Labor Market* (Englewood Cliffs, N.J.: Prentice-Hall, 1951).

Wage Comparisons and Ability to Pay

In dealing with centrifugal and centripetal tendencies in wage determination, a convenient point of departure is to examine the customary standards of equity which are almost universally invoked around the bargaining table and before arbitrators and government boards. These include changes in the cost of living, comparative rates and comparative adjustments, the employer's wage-paying capacity, the budgetary requirements of a living wage, and trends in productivity. These criteria have changed little since before World War I, except that in recent years some unions have stressed the need for adequate purchasing power and employers have dwelt upon the evils of inflation. Experienced negotiators and arbitrators will probably agree that in most cases the living-wage, productivity, full-employment, and inflation arguments have little or no weight in the decision. Cost of living, wage comparisons, and ability to pay are generally of great significance, however, either singly or in combination with each other. This is amply demonstrated in Irving Bernstein's monograph on wage arbitration. Bernstein analyzes the equitable criteria cited in published wage-arbitration cases between 1945 and 1950. He finds that cost of living, wage comparisons, and ability to pay account for 85 per cent of 1,027 citations by unions, employers, and arbitrators.⁸ Undoubtedly the reason why some of the conventional criteria are more influential than others is that some are channels for transmitting real and vital pressures focused on the negotiators and the parties they represent, while the others, although perhaps of analytical and statistical interest, do not represent compelling pressures.

The problem at hand can be analyzed by watching the interplay between two of the three more significant wage-determining standards: wage comparisons and ability to pay. Comparisons exert a centripetal force, pulling separate wage bargains together into a system. Ability to pay is often centrifugal, since no two employers are situated exactly alike from the standpoint of financial capacity.

If comparisons were unlimited and unrestricted, then rates of pay would be equal everywhere (except for occupational differentials) and would be equally adjusted. There are two reasons why this does not happen: first, comparisons run in limited orbits; and second, even within a customary orbit they are sometimes superseded by more compelling considerations, especially differences in ability to pay. There are times, of course, when the economic position of most employers is changing in the same direction. These are also likely to be times in which the cost of living, which affects all workers more or less equally, is moving

⁸ Irving Bernstein, *Arbitration of Wages* (Berkeley, Calif: University of California Press, 1954), pp. 28-29.

rapidly. The years between 1945 and 1948 will serve as an example. During such periods, the pressure of equitable comparison is particularly strong because it is subject to unusually little interference.

The importance of comparisons to all parties concerned is self-evident. They tell the employer whether he is "staying in line," neither allowing his employees to become disgruntled nor embarrassing his fellow employers. They serve as a measure of fairness to the worker and indicate whether he has obtained what is coming to him. They are the crucial test of performance in the union world. To the arbitrator they are a shining candle in the black night of conflicting claims and statistics. The ready-made settlement is administratively convenient, mutually face-saving, and simple to defend.

The importance of ability to pay to the employer is even more obvious. The term should not be taken literally, of course, as indicating that the employer is paying the highest wage of which he is capable and that anything higher would be attended with catastrophic results. Doubtless many firms could pay higher wages if absolutely required to, without going out of business, changing their methods of production, or substantially reducing their volume of employment. But there are many legitimate claimants on the income of a firm, and their competing claims must be balanced. What is ordinarily involved is a rough relationship between the level of profits and the willingness to make wage adjustments.

It is impossible to define precisely the point at which considerations of financial capacity will supersede an established comparison. The case of bituminous coal provides a fascinating exercise. Output and employment in the industry have fallen steadily for a good many years now. The number of production workers declined from an average of 438,000 in 1948 to 351,000 in 1950, 304,000 in 1952, and 199,000 in 1955. Until the end of 1952, the mine workers insisted on wage and fringe adjustments considerably in excess of those being negotiated by the auto workers, the steelworkers, and other major unions. In fact, its 1952 package was so large that the Wage Stabilization Board suffered fatal indigestion. But between 1952 and 1955, the mine workers voiced no demands whatever, although their contract was open for most of the period and other unions continued to move ahead. Not until 1956, after a considerable increase in employment and number of working hours, were any changes made in the contract. Conversely, an established comparison may be so compelling as to frustrate any consideration of ability to pay.

When comparisons are difficult to ignore but ability to pay also presents problems, there are ways of carrying water on both shoulders. One of the most interesting examples is found in the Brockton shoe industry, which has been carefully studied by George Shultz. On the one hand, "the statements and actions of rival leaders, rival unions and 'radi-

cals' within the Brotherhood have created pressure for general wage movements, pressure acting primarily through the medium of 'institutional' and 'personal' objectives."⁹ On the other hand, there has been severe nonunion competition in this rather unprofitable industry; and "both the rank and file and the officials of the Brotherhood have been greatly concerned over the volume of work available in the Brockton district."¹⁰ The solution for this dilemma has been to negotiate general wage increases but to adjust the "grade system," under which piece rates depend on the grading or classification of shoes.

There are other methods of dampening the real effect of a general wage increase. The parties can decide not to adjust incentive rates correspondingly. Fringe benefits can be traded off for part of the wage increase. Workers can be classified more stringently. Time studies and labor standards can be tightened up. In these ways, labor cost can be insulated to a greater or lesser extent from the impact of a nominal general wage increase.

Soft- and Hard-goods Industries

It is instructive to note the large differences among industries with respect to the prominence of the ability-to-pay standard. In some industries it is generally a crucial issue. Wage reductions are frequently negotiated, although arbitrators are sometimes engaged to fix the amount of a reduction which both parties recognize to be inevitable. These are the same industries in which unions give most explicit consideration to the "employment effect" of wage bargains. They are likewise the industries in which "national patterns" have the smallest influence. Hosiery, apparel, shoes, and textiles come to mind most readily. Between January, 1951, and January, 1953, for example, the cost of living rose about 5 per cent; straight-time hourly earnings advanced 13 per cent in durable-goods manufacturing and 9 per cent in nondurable goods. Yet wages were cut in hosiery and there was little net change in the other soft goods.

The hard-goods industries present an altogether different picture. These include basic steel, autos, farm equipment, rubber, glass, nonferrous metals, shipbuilding, aircraft, electrical goods, and similar activities. The "national patterns" are played out on these grounds. Employers resent and resist any reference to their financial position and reject ability to pay as a legitimate standard of wage determination. With one exception, there have been no significant wage reductions for over twenty years. (The exception consists of the smaller auto manufacturers whose rates were higher than those in the "big three" and who persuaded the auto

⁹ George P. Shultz, *Pressures on Wage Decisions* (Cambridge, Mass.: Technology Press, 1951), pp. 131-132.

¹⁰ *Ibid.*, p. 132.

workers to accept wage cuts under the most severe competitive pressure in 1954.)

Employment and wage developments in two of these industries in 1953-1954 are most instructive. Between May, 1953, and May, 1954, the number of production workers declined from 834,000 to 604,000 in automobile manufacturing and from 561,000 to 487,000 in basic steel. Likewise, average weekly hours decreased in both industries. But wages were advanced in 1954 as they had been for many years past. Apart from the small auto companies, no employer even bothered to argue that increases should be foregone, or that rates should be cut, because of declining production and employment. Yet, with smaller relative declines, this is precisely what happened during 1951-1952 in some of the soft-goods industries.

The following differences between these two groups of activities can be noted, the most pertinent of which are the last two listed: (1) in soft goods, labor cost tends to be a somewhat larger component of selling price; (2) piecework is more common, so that wage rates are closely and mechanically linked to labor cost; (3) the firms are typically smaller and have lesser financial reserves; (4) the product market is more competitive in the soft-goods industries, so that prices are cut when demand falls off; whereas in steel, autos, etc., prices are maintained and production curtailed;¹¹ and (5) the heavy industries are almost completely organized, whereas there is a substantial nonunion sector in shoes, hosiery, and many branches of the textile industry.

Thus comparisons and "patterns" on the one hand and economic pressures on the other differ in relative weight from one sector of the economy to another. Within the durable-goods manufacturing sector, the wage movement shows a notable tendency toward uniformity, even over considerable periods of time. The tabulation on page 194 shows increases in straight-time hourly earnings from 1939 to 1952, measured in cents per hour. These figures show equalization of movement, and preservation of differentials, with a vengeance! Over the thirteen-year period, twelve of the fifteen industries experienced aggregate increases ranging from \$1.02 to \$1.10 per hour. Two others were a few cents away. Only electrical machinery showed any appreciable deviation. It is believed that certain other hard-goods industries such as glass, aluminum, and airframes experienced similar movements, although comparable statistics for 1939 to 1952 are not available. Moreover, the

¹¹ "Declines in product prices and not unemployment constitute the effective downward pressure on wage structures. . . . Wages fell last (and probably least) . . . in the sector of the economy in which unemployment was clearly relatively greatest." From John T. Dunlop, *Wage Determination under Trade Unions* (New York: A. M. Kelley, 1950), pp. 146, 148.

<i>Industry</i>	<i>Increase: 1939-1952, cents/hour</i>
Basic steel	109 1
Malleable iron foundries	109 8
Steel foundries	102.1
Nonferrous metals (smelting & refining)	104 9
Nonelectrical machinery	103.7
Engines and turbines	109 3
Tractors	106.8
Agricultural machinery (except tractors)	108.0
Machine tools	104.1
Electrical machinery	92.1
Automobiles	105.7
Tires and inner tubes	109 7
Aircraft engines and parts	107 8
Ship and boat building and repairing	99 4
Locomotives and parts	112 2

SOURCE: Computed from data supplied by U.S. Bureau of Labor Statistics.

aggregate increase was \$1.02 in meat packing and \$1.09 in Class I railroads. While both these industries are outside durable-goods manufacturing, their wage movements are distinctly related to that sector of the economy.

This remarkable flatness of the wage movement has escaped many students because of their insistence upon using the percentage method of measurement.

But uniformity disappears when we move into other sectors. The aggregate increase was 61 cents in work shirts, 75 cents in footwear, 86 cents in cigarettes, \$1 in pulp and paper, \$1.17 in petroleum refining, \$1.34 in building construction, and \$1.40 in bituminous coal.

LOCUS OF DIRECT RATE COMPARISONS

Now, what is the locus of the "standard rate"? According to Dunlop in Chapter 5, wage rates are equal within "wage contours." He defines a wage contour as a stable group of firms (wage-determining units) "so linked together by (1) similarity of product markets, (2) resort to similar sources for a labor force, or (3) common labor-market organization (custom) that they have common wage-making characteristics." The first of these linkages appears to be the crucial one, so that for practical purposes it is competition in the same product market which produces equality of wage rates. Conversely, "the theoretically significant differences for similar grades of labor are those which reflect different product-market competitive conditions."

Certainly the product-market link is a basic one, but a full statement requires that other complications be noted.

The Plant and Company

The simplest application of the standard rate is, of course, within a plant. Under collective bargaining and modern personnel administration, jobs are classified and uniform rates are established even though many products selling in different markets are produced. Moreover, unions are generally unenthusiastic about merit ranges, except in the case of skilled trades, and tend to insist on single rates or length-of-service ranges. The gradual elimination of merit ranges from the lower labor grades in the airframe industry serves as an interesting example.

The next stage consists of the multiplant company. Where the plants are located in a single area, generally uniform rates and benefits are offered. Where they are geographically dispersed, however, there are pressures for both uniformity and diversity.

On the one hand, it is administratively convenient to have standard terms of compensation, particularly welfare and the insurance programs which can be operated on a company-wide basis. Interchange of labor is facilitated. If a single union with centralized wage policies enjoys bargaining rights throughout the company, interplant differentials will be attacked as irrational and inequitable. Moreover, the union will be concerned lest work be transferred to the lower-wage plants at the expense of its members in the older metropolitan areas.

On the other hand, the company may dislike offending the local business and financial interests in the low-wage communities. It may resist the notion of paying wage rates considerably higher than what is prevalent in these communities. The various plants may compete in separate and unrelated product markets, and their wage-paying capacity may differ so widely as to override equitable comparisons. If a decentralized union holds bargaining rights, or different unions which are not engaged in active organizational rivalry hold them, wage differentials may persist solely for the reason that no one is making an issue of them. Or the differentials may continue because the union chooses to take all wage increases in the form of company-wide adjustments, in order to avoid creating internal political stresses. In 1946, the United Auto Workers, for example, resolved to bring about "the establishment of corporation-wide wage agreements in multiple plant corporations, and the equalization of wages within and between plants in such corporations."¹² No particular progress has been made toward this goal in the case of General Motors, the largest employer of UAW members, because company-wide adjustments have been placed in effect during each of the succeeding years.

¹² *A Program for UAW-CIO Members* (Detroit, United Automobile Workers, 1946).

Thus the outcome depends on numerous variables which defy generalization. A few observations can be noted, however:

1. Uniform wages regardless of location are more probable if the enterprise is unionized.

2. Fringes are likely to be equalized more readily than wage rates. In fact, fringe benefits and general wage increases may be dealt with in company-wide agreements, while occupational wage schedules are covered by separate local agreements.

3. Frequently the parties will eliminate geographical differentials in several bites as an alternative to swallowing a single indigestible lump. A good many years may pass before full equalization is achieved. Perhaps the plants will be grouped into categories, such as the "metropolitan," "river" and "Southern" plants in the meat-packing industry. Equalization can then proceed by the reclassification of plants as well as by negotiating larger increases for the lower-paid categories. This more leisurely approach has certain advantages to both parties: the company's cost structure is adjusted gradually, and the union is able to devote part of its gains to general wage increases rather than pass over part of its membership altogether as might otherwise be necessary.

4. Although the situation is mixed, clearly the trend is in the direction of company-wide equalization. Differentials are being reduced or eliminated in many firms, while few are being increased or established for the first time, so far as the evidence discloses.¹⁸

The Industry

When an industry is dominated by a relatively small number of firms, each having numerous plants, company-wide and industry-wide equalization tend to coalesce as one process. Uniformity of hourly rates in bituminous coal and of labor costs in men's clothing has been accomplished through multiemployer bargaining. In meat packing, rubber, and steel the same result has been achieved or is being approached on a company-by-company basis. In general it may be said that formal employer organization and industry-wide negotiations do not necessarily produce different results from those achieved by the more informal bargaining structures such as "wage leadership." In either case there are pressures for uniformity and for diversity. In either case the union can present a solid front, although differences in expiration dates may create difficulties. In either case the besetting problem for the employers is whether they can hold together. Disruption may develop despite formal organization, and

¹⁸ One qualification to this statement should be noted. Some firms, which heretofore have operated in one location, have installed branch plants in widely separated communities. Such firms are not all observing company-wide wage schedules. They can therefore be described as establishing interplant differentials for the first time.

the most impregnable unity may be achieved in its absence. Mine operators have their associations, but the United Mine Workers have easily split them apart on numerous occasions. Steel companies consult informally with each other but generally maintain solidarity.

Certainly the intraindustry comparison is the weightiest one in so far as equalization of rates is concerned. As previously noted, Irving Bernstein has analyzed the equitable criteria cited in published wage-arbitration cases between 1945 and 1950. Approximately 49 per cent of all "citations" by unions, employers, and arbitrators consisted of comparisons of one sort or another. Three-fifths of these were intraindustry comparisons. Even more instructive is the fact that 49 per cent of all decisions rested primarily on intraindustry comparisons. Interindustry and interunion comparisons were the primary basis for another 10.5 per cent of decisions.¹⁴

It should not be supposed that the wage rates for even a single occupation in a single industry and area are "naturally" uniform owing to some equilibrium of market forces. They are often made uniform by conscious decision, usually in the collective-bargaining process. But unless measures of this type are taken, substantial disparities are almost certain to be found.

The definition of "industry" presents a complication. Where the goods or services are sold in a local market (as in building construction, cemeteries, and the culinary trades), the pressure for equalization may not extend beyond the locality. Where they compete in a national market (as in coal), wages may be equalized on a national basis. The geographical orbit of product competition and of wage equalization are not necessarily the same, however. Soaps compete in a national market, but sizable wage differentials prevail in the soap industry. Presumably the structure and intensity of union organization have not been such as to anticipate interarea wage comparisons. Longshoring is a local service, but a rigid wage parity exists between the East and West Coasts, rival unionism providing the energy.

Furthermore, there is a distinct tendency for unions to extend their wage rates from metropolitan centers into suburban areas and smaller communities in the vicinity. Still, the product market may be as localized as the neighborhood butcher shop. On the other hand, a local industry may be subdivided for the purpose of collective bargaining if there are substantial differences in wage-paying capacity. Thus there will be Class A, Class B, and Class C hotels, chain and local radio stations, and so on.

The classification of new enterprises and activities is often the subject of controversy between employers and unions. One of the most troublesome issues in atomic energy labor relations has arisen in this way. Is

¹⁴ Bernstein, *op. cit.*, pp. 28-29.

there an atomic energy industry? The unions insist that there is, the operating contractors contend that their respective plants are to be classified in the chemical, petroleum, and electrical industries. What is principally at stake is whether certain advantageous fringe benefits established in the original installations are to be extended more widely, or whether the employers may "bring in" their own fringes. The situation is anomalous in that the establishments do not compete with chemical plants, oil refineries, etc., but neither do they compete with each other.

As Bernstein notes, the intraindustry comparison is of no help under two circumstances. The first is in the negotiation of an industry-wide agreement. The second is in the negotiation of a "key bargain" with a "wage leader." In both cases reference must necessarily be made to other industries, but the trend of adjustments is more significant than direct rate comparisons.

Cross-industry Comparisons

When we pass beyond the boundaries of the industry, direct rate comparisons lose much of their force. Certainly there is no likelihood that wage rates will be equalized regardless of industry, although percentage differentials have declined greatly. Dunlop's definition of a "wage contour" as generally coterminous with a single product market has considerable merit therefore. Contrary tendencies must be noted, however:

1. Some craft unions have been able to establish uniform rates in some of their communities. In the San Francisco-Oakland area, for example, tool- and die-makers are employed in numerous manufacturing industries, but practically all of them receive the wage rate negotiated by the machinist's union and the metal-trades association. The same is true of warehousemen under the contract between the longshore union and the distributors' association, who are employed in such diverse enterprises as mayonnaise plants, coffee-roasting houses, steel distributors, and paint warehouses.

2. Some multi-industrial unions endeavored to extend wage rates negotiated in the original centers of their jurisdiction into the more recently organized activities. The rate structure and job-evaluation plan developed in the steel industry have had a great deal of influence in aluminum, iron ore, and even nonferrous metals. The auto workers have attempted to establish "Detroit rates" in airframe plants, but with very little success up to now.

3. The major industries in an area often exert an upward or downward pull on the wage level of other industries. This does not result in full equalization, of course, but it should not be thought that the various "wage contours" are independent of each other. Thus, there is one lonely textile mill in Oakland, California, with rates which are low by area

standards but high by industry standards Examples of this type, and of the converse situation, could be reiterated without end

COMPARATIVE MOVEMENTS

Normally the orbit of direct wage comparisons is confined within an industry, but relative movements in wage rates are subject to broader comparisons There are four influences in particular which encourage the diffusion of wage movements throughout a wider range: (1) centralization in union bargaining policy, (2) common ownership of establishments, even in separate product markets, (3) active government participation in determining wages, and (4) organizational and leadership rivalries within the labor movement

The author has described these influences in another publication¹⁵ and will refrain from dwelling upon them here A few additional observations may be noted, however

Social and Economic Influences

The intensity of rival unionism seems to have diminished considerably in the past decade While formal jurisdictional claims still overlap greatly, unions are increasingly willing to respect *de facto* spheres of influence Now that unions have saturated their easily organizable market, competition over new territory has given way to more intensive cultivation of what is already in possession Recognition that "raiding doesn't pay" has encouraged no-raid agreements Procedures have been developed for negotiation and arbitration of jurisdictional controversies As boundaries have become stabilized, interunion wage competition has grown less severe

Moreover, aside from the Korean War period, the government has not played an active role in developing wage patterns during recent years The 1945-1946 episode, when fact-finding groups and the Wage Stabilization Board crystallized a uniform settlement applying to several million workers, has not been repeated in any peacetime year Therefore another factor productive of uniformity has been relatively inoperative But the experience of the Wage Stabilization Board in 1951-1953 demonstrated once more that equal treatment is the *sine qua non* of government wage policy While the formal policies did not permit any increase in real-wage rates, the Board found it impossible to rope off its decision sanctioning the "annual improvement factors" in the automobile industry The 4-cent improvement adjustment moved into the stream of wage

¹⁵ Arthur M Ross, *Trade Union Wage Policy* (Berkeley, Calif. University of California Press, 1948), pp 55-70.

determination and received the Board's approval, on one basis or another, in electrical goods, aircraft engines, petroleum, rubber, shipbuilding, and other activities. Finally a referee appointed by the President held that approval of improvement factors and similar adjustments had become sufficiently general to reactivate the reopening clauses in the railroad agreements, which provided that wages could be open "if government wage stabilization policy permits so-called annual improvement wage increases."¹⁶

Other significant factors which influence the diffusion of wage patterns are the business cycle and the force of custom. The range of uniform adjustments is wider in periods of prosperity and inflation than in periods of depression, and for two reasons. First, increases in the cost of living affect all workers more or less equally and generate more or less equal pressure for relief throughout the labor market. Second, when most employers are operating at a satisfactory profit level, differences in ability to pay do not obstruct the flow of uniform adjustments. At the other end of the cycle, however, the shadow of uneven financial capacity is thrown across the bargaining table and produces irregular results.

The influence of custom in sanctifying established relationships (and therefore in promoting uniform adjustments) is embodied in the concept of the "historical differential." Established wage relationships have great force, not only within plants, but also between plants. Within a plant, workers and managers come to take it for granted that the higher-paid jobs require more skill and carry more status.¹⁷ Attitudes and sentiments regarding the relative worth of jobs develop as part of the "social structure" of the plant. If excessive violence is done to these attitudes and sentiments by the installation of a job-evaluation plan, demoralization can result.

Between plants, customary relationships seem to have considerable

¹⁶ Memorandum from Paul A. Guthrie, Dec. 30, 1952. Mr. Guthrie awarded a 4-cent general increase under this reopening.

¹⁷ "The factor which has been somewhat neglected in the discussion of industrial wage administration we may call, for want of a more precise term, custom. There are two ways in which this factor operates. Whenever wages are altered—either by administrative determination or negotiation—the new figure is determined by reference to the wages previously paid for that kind of work. The other way in which custom affects wage rates is the determination of differentials between jobs in the same plant. Warner and Low have shown very lucidly in their study of shoe manufacturing in Yankeetown that wages are roughly correlated with the degree of skill assumed necessary for each job. On close examination these assumptions are often found to be spurious. The rank order of skill attached to jobs is a derivation from the original rank order which existed in the days when the boot and shoe industry was on a handicraft basis, but intervening events have stripped it of all validity." From Theodore Caplow, *The Sociology of Work* (Minneapolis: University of Minnesota Press, 1954), pp. 159, 160.

strength, whether or not the employees are organized Referring to a predominantly nonunion labor-market area, Reynolds states ¹⁸

A particular plant may have unusually high wage rates [for various reasons]

Other plants may have unusually low earnings for the opposite reasons Over the course of time these differences in plant wage levels become recognized and customary Individual managements do not strive to eliminate them and achieve absolute equality with other plants, they strive rather to protect their established position in the wage hierarchy of the area

And further ¹⁹

Considerable differences in the wage levels of different firms may be accepted by workers if they have existed long enough to be regarded as natural It is changes in established differentials which cause unrest and difficulty

The importance of established wage relationships as a standard of equity in collective bargaining was noted a generation ago by J F. W Rowe in a discussion of British differentials ²⁰

A cursory examination of the problem of wage differentials . strongly emphasizes the far-reaching effects of sheer custom and its domination over men's minds It is difficult to suppose that the influence of consciously directed trade union policy would have been at all considerable if it had not been reinforced by the domination of custom We do not realize the little changes in everyday life which sap the logical foundation of our ideas, and custom has time to consolidate the structure before these foundations have completely crumbled

Certainly the rationale of many established relationships which command the attention and respect of negotiators, arbitrators, and wage-control authorities is found mainly in the fact that they are established. The difference between a "historical differential" which must be preserved and a "gross inequity" which must be eliminated is frequently that one is sanctioned by habitual usage while the other is not

But just as the logical foundation of ideas may crumble, so may a wage relationship built on custom A change in the size of a firm, in its product line, in the economic condition of its industry, or in the union representing its workers may be sufficient to move it out of one customary relationship and into another In other words, wage patterns acquire considerable inertia as time goes on but are not invulnerable to changes in the economic and institutional environment

¹⁸ Lloyd G Reynolds, *The Structure of Labor Markets* (New York Harper, 1951), pp 157-158

¹⁹ *Ibid*, p 220

²⁰ J. W. F. Rowe, *Wages in Practice and Theory* (London Routledge, 1928), p 111.

National Patterns

Let us turn now to some observations concerning "national patterns" of adjustment, about which much has been spoken and written.

1. In the first place, we have seen that there is really no such thing as a "national pattern." Instead there is a tendency toward uniformity over a limited number of industries, many of which have been organized by industrial unions of the CIO. Even in 1945-1946, when the 18½-cent adjustment was so popular, the average increase among manufacturing workers was 14½ cents and among nonmanufacturing workers 8½ cents. Actually 21 per cent of the employees in manufacturing, and 59 per cent outside manufacturing, received no increase whatever between August, 1945, and May, 1946.

2. There is some hazard of "round-counting" in an oversimplified fashion, to which newspapers and periodicals have often succumbed. The advent of New York's Day does not produce any abrupt change in the collective-bargaining climate.

3. Uniform adjustments generally circulate in restricted orbits, or circuits, the nature of which has been dealt with above. Even here the separate orbits are interrelated and overlapping. For example, is a group of stationary engineers in a commercial laundry covered by an operating engineer pattern, or by a laundry pattern, or is there to be a separate pattern for engineers in laundries? The last alternative is the most probable one, and the amount is likely to be affected both by adjustments extended to other groups of operating engineers in the community and by those extended to laundry workers and to represent some kind of compromise between the two.

4. There are some influences which affect almost all bargaining situations and therefore intrude themselves into almost every orbit of comparison. Of these, the most prominent are (a) rapid changes in the cost of living, (b) general movements in production, employment, and profits, and (c) government wage-control policies during periods of emergency. Many studies have been made of factors having a differential influence on wages in particular industries, but it is fair to say that forces affecting the economy as a whole have been the stronger ones. Between 1933 and 1946, for example, the average increase in straight-time hourly earnings among fifty industries (for which complete data were available) was just under 60 cents. Thirty-five industries showed deviations of less than 10 cents, and forty-four showed deviations of less than 15 cents. While the area of uniformity is limited, as we have seen, the range of diversity should not be exaggerated.²¹

²¹ Arthur M. Ross and William Goldner, "Forces Affecting the Inter-industry Wage Structure," *Quarterly Journal of Economics*, vol. 64, no. 2 (May, 1950), p.

5 Neither should we exaggerate the importance of "pattern-setting" units such as General Motors or the United States Steel Corporation in establishing the general level of adjustments during a particular period. Their settlements are not plucked out of thin air but generally conform to the trend of other settlements, especially those in the durable-goods industries. Normally the "pattern-setting" agreements might better be called "pattern-confirming." Once they have been consummated, many others fall into place, but they emerge from the bargaining context of their time and are not original acts of creation.

CONCLUSIONS

The principal purpose of this chapter has been to explore the nature and the determinants of interplant, or external, wage relationships. A brief summary may be in order at this point.

The rough outlines of the external wage structure are fixed by economic forces which are beyond the control of individual decision makers. This refers to broad aggregative relationships such as between Northern and Southern regions, textile and metalworking industries, or manual and clerical employees. The economic forces are sufficiently loose in their operation, however, to leave an area of discretion within which choices can be made. Choices to equalize or not to equalize wages, to create or eliminate differentials, constitute the decision-making aspect of the external wage structure. The bulk of the present chapter has been concerned with the rationale of such choices.

One of the initial problems is to define the unit of choice or comparison. Are choices made in terms of a gross concept of "wages" including hourly rates plus fringe benefits, or are there separate comparisons of wage rates and of the several fringe benefits? We have seen that although wages and fringes are bargained together and are substitutable for each other under some circumstances, basically they are subject to separate comparison.

In discussing interplant relationships, it was found useful to distinguish between centripetal pressures, which pull separate decisions together into a system, and centrifugal pressures, which hold them apart. Equitable comparison tends to make wages (and wage adjustments) equal, while differences in financial capacity tend to make them vary. The interaction between these major centripetal and centrifugal pressures was illustrated by cases in which one was dominant over the other and in which the two have been reconciled.

266 See also Sumner L. Slichter, "Do the Wage-fixing Arrangements in the American Labor Market Have an Inflationary Bias?" *American Economic Review*, vol. 44 (May, 1954, Supplement), p. 333n.

The pressure of equitable comparison is buttressed by the importance of custom in sanctifying established relationships. "What has been, should be" However, uniformity is more easily preserved in periods of prosperity, when increases in the cost of living are affecting all workers more or less equally and most employers are making satisfactory profits, than in periods of depression, when uneven financial capacity produces irregular results.

It was shown that, if the analysis of equitable comparison is to be carried further, another distinction has to be made between direct wage-rate comparisons and comparative adjustments. The simplest application of the "standard rate" was seen to lie within a plant. Pressures for equalization in the multiplant company were discussed, along with some counteracting tendencies which are generally weaker. The importance of interplant comparisons within the industry was stressed, but problems of industry definition and classification should be kept in mind. Finally, it was indicated that although direct wage comparisons operate primarily within an industry, cross-industry comparisons are influential in some circumstances.

Relative wage *movements* are subject to broader comparisons, which are sharpened by organizational alignments and rivalries in the labor movement. Here again differences must be noted, however. A large group of heavy industries characterized by oligopolistic market structure tends to move up more or less as a unit, while other activities (particularly those which are only partially organized) go their own way in so far as wage adjustments are concerned.

Thus it should be evident that the determinants of the external wage structure are complex and various. Despite these diversities some reasonably confident statements can be made concerning the probable course of interplant differentials.

To begin with, it is clear that true differentials will persist into the future as far as it is foreseeable, that is, the relationship between job content and level of compensation will continue to vary between one industry and another and between one region and another. Geographical differentials will diminish, however, as the backward areas become more heavily industrialized and more substantially organized. The rank order of industries in terms of relative wage levels will not change greatly: petroleum refining will probably always pay more than shoe manufacturing, even if full allowance is made for differences in "occupational mix."

Among the several plants of a single firm, however, and among the various firms in a given industry, differentials will continue to decline and fall by the wayside entirely. Formal consolidation of bargaining

structure will be partly responsible, and separate decisions will become more "related" and uniform as the pressure of comparison does its work.

Even if nothing else should happen, it is likely that percentage differentials will decrease, and cents-per-hour differentials enlarge, as they have in the past. Finally, although fringe benefits will become an increasing proportion of total compensation, wages and fringes will probably remain subject to separate comparison. A suitable wage rate and various suitable fringes—not merely a suitable aggregate—will be the requisite of industrial peace.

8. *Economic Adjustments to Changes in Wage Differentials*

J. M Clark has observed that "economists have an unfortunate record of proving that things are impossible or unsound which afterward came to pass, without all the disastrous consequences that had been foretold."¹

Predictions of the consequences of wage change have frequently proved faulty because they were based on a narrow and static type of analysis. Limited focus on wage-employment relationships, or on one channel of reaction, neglects the variety of developments that may flow from different sets of circumstances. In addition, a static theory of industrial management is too rigid and mechanical. It erroneously assumes that management lacks latitude in making adjustments, and it disregards the actual process of adjustment and the repercussions of adjustments upon management's policy decisions.

Frequently wage explanations and wage consequences are closely associated. The anticipated effects of a wage change upon company employment may affect decisions with respect to the firm's wage level. Moreover, such factors as the firm's horizon or its management's expectations concerning competitors' reactions may influence both wage determinants and wage consequences, so that it may be difficult to deal separately with results.

PROCESSES OF ADJUSTMENT

Such considerations indicate the need to begin an analysis of the impact of wage changes with a discussion of the aims and adaptability of industrial management. Focus on management's objectives and adjustments means adoption of the viewpoint of the individual firm. Industry considerations, such as interfirm rivalry or allowance for possible reactions of competitors, are encompassed within the concept of the product market.

¹ J M Clark, "Criteria of Sound Wage Adjustment, with Emphasis on the Question of Inflationary Effects" in D M Wright (ed), *Impact of the Union* (New York: Harcourt, Brace, 1951), p 31.

Management Aims

For an analysis of the adjustments that individual firms may make to a particular wage change, the traditional theory of the firm is inadequate. Based on a single goal of profit maximization, arrived at by the method of marginal calculations, it is far too narrow and unrealistic. Many avenues of adjustment are assumed to be closed to the firm's management by postulating an optimum level of managerial efficiency and, in most cases, assuming pure competition or monopoly. In actuality, a wide range of market imperfections and a variety of institutional influences may cause the incidence of a wage increase to be shifted, at least in part, to nonlabor elements. For example, wage pressures can induce waste elimination, and the impact of wage changes can thus be partly or even wholly absorbed or offset,² assuming that management has been sufficiently slack to have permitted considerable waste but is also sufficiently competent to correct the situation.

Corporate managements seem to be influenced by a number of objectives, not simply by a single monetary goal. The importance of a particular objective varies from firm to firm, depending on such circumstances as the age and size of the firm, its market position, its financial liquidity, the time span of its planning, and the costs of its competitors.³ Large and powerful firms tend to be more long-range in their planning and objectives than do small and insecure companies. As Leland Hazard explains in Chapter 2, business success may often be gauged more by the maintenance of a firm's market position and retention of "loyal customers" than by calculations of net profits. Managements generally want their firms to grow and to be known as progressive in management practices and in research. And a company's reputation may be enhanced by assuming some costs for "social responsibilities," including company contributions to community chests or to private colleges.

With the increasing professionalization of corporate management, additional emphasis may also be placed on the reputation and security

²For a discussion of savings through waste elimination, see Richard A. Lester, *Labor and Industrial Relations* (New York: Macmillan, 1951), pp. 33-34, 200-201.

³See, for example, G. L. S. Shackle, "Business Men on Business Decisions," *Scottish Journal of Political Economy*, vol. 2 (February, 1955), pp. 32-46. Answers by management officials in thirteen small and large metal-processing firms to Shackle's questions seem to indicate that small firms emphasize short-run profit considerations more than do large companies and that managements place considerable stress on the firm's public reputation and prestige and are "less materially minded than the economist's ordinary assumptions suggest."

For additional material and references supporting the view of a diversity of management objectives, see Lester, *op. cit.*, pp. 30-35, 197-202, and George Katona, *Psychological Analysis of Economic Behavior* (New York: McGraw-Hill, 1951), pp. 193-213.

of the management and its desire to supervise a contented work force for reasons of personal satisfaction and convenience. Such goals as the survival and growth of the firm may be paralleled by the desire for the survival and prestige of the present management.

Some corporate managements seek to make collective bargaining function satisfactorily as part of a program to support and advance the private enterprise system. In a number of instances, such support has included recognition of the need to promote political satisfaction with the system. Indeed, management objectives in some recent wage negotiations would seem to have included a desire to demonstrate that the Eisenhower Administration's economic policies are in the public interest and to avoid strikes that would embarrass the administration.

To summarize, differences in goals may cause divergence in the kind of adjustment that various firms make to a wage change. Among the objectives that may guide management are the following: (1) profit maximization in the short run (within one or two years), (2) satisfactory profits from a long-run viewpoint, (3) convenience and reputation of management, and (4) growth and reputation of the firm.

Influence of Institutional Factors

The traditional theory of the firm assumes that institutional arrangements offer only frictional resistance to more fundamental economic forces. In reality, labor agreements and unions may develop obstacles formidable enough to alter the channels along which economic influences operate. The classical theory assumes that adjustments proceed by a mechanical process of restoring an equilibrium of forces. Actually the process of moving may, by the reactions it stimulates, affect the destination of the movement. Consequently the concept of a long-run equilibrium that exists independent of the institutional situation and of the adjustment process is too mechanistic and unrealistic.⁴ And the assumption of a single type of management mentality and a single method of operation neglects significant differences in such factors as past industrial relations experience, institutional developments, and the "internal" and "external" pressures to which management is subjected by unions, creditors, customers, stockholders, and so forth.

A management's ability to adjust and the manner of its adjustment to a wage increase are frequently affected by the terms of labor agreements. With seniority governing the order of layoff and recall, nonprobationary employees are immune from outside competition, and any attempt to meet a wage increase by hiring new employees as substitutes for existing employees is precluded.

⁴See Joan Robinson, "Imperfect Competition Revisited," *Economic Journal*, vol. 63 (September, 1953), p. 590.

Other provisions of labor agreements may also limit or prevent certain types of adjustment. For example, dismissal compensation or guaranteed wages may discourage reduction in employment. Experience rating under unemployment-compensation legislation has a similar discouraging effect on layoffs that would increase the firm's unemployment tax rate.⁵ Some agreements prevent management from tightening production standards, a few restrict migration of the firm's operations to other localities, at least during the term of the labor agreement.

Trade unionism may serve to stimulate some employers into innovations that result in cost reduction, product improvement, or sales increases. Union-inspired wage standardization or wage increases may provide an added incentive to management initiative and ingenuity, so that competition is not reduced but is perhaps redirected and even intensified.

In addition to the provisions of an agreement, the climate of relations existing between a company and its union (or unions) may influence company policy and management reaction. If the management has confidence in the union as a responsible organization, it may react to a wage change calmly and confidently, knowing the extent to which its unionized competitors will have to meet the same labor standards. If rivalry for leadership exists in the union, the management may seek to avoid policies that might help to overturn responsible elements among the union's leaders.

Such institutional influences often serve to preclude small adjustments within limited zones of no reaction. Whether such no-reaction ranges are only temporary and are eliminated in the long run depends upon the amount of flexibility that the management continues to enjoy as a result of such factors as its market position, its ingenuity in product design and selling, and its skill in managing men.

It is well to bear in mind that firms have industrial relations departments and personnel programs in order to influence labor cost and to help the work force adapt to changes. Thus managements may be able to affect the way that particular wage increases or decreases react on employee attitudes and labor productivity. Also, through wage administration and the administration of production standards, managements may cushion or minimize the cost effects of a wage increase. On the other hand, well-established company practices in the hiring, transfer, and promotion of employees may limit the possible channels of adjustment of the labor force to a wage change.

One reason that managements are concerned about the composition of a wage "movement"—whether the wage increases serve to narrow or

⁵ Of course, guaranteed wages and experience rating may also discourage the hiring of new, additional employees, but the discussion here is in terms of adjustment to wage change.

spread (1) percentage differentials between occupational groups, (2) differentials between incentive and nonincentive workers, or (3) shift and geographic differentials—is that the same average cents-per-hour increase may have markedly different effects upon production and labor costs, depending on its distribution over the work force and the skill with which it is "sold" to the employees. General wage increases may, for instance, so compress the wage structure or create such inequities that the adverse consequences for worker morale will offset any favorable effects from such increases.

Wage leadership may also affect the consequences of a wage increase. The firm leading a new wage movement or a "breakthrough" development may, for its increases, obtain some *quid pro quo* which companies following wage patterns are unable to achieve. That, for example, was apparently the case when General Motors granted the annual improvement factor and the UAW (CIO) agreed, in return, to cooperate in technological changes; companies following General Motors' wage pattern seem generally to have failed, for one reason or another, to get an equivalent advantage from their acceptance of the same wage terms. Thus firms may gain differential advantages through the timing of wage changes. Unions may, however, reduce the possibilities of such differential gains.⁶

In short, management is a many-sided art, restricted by competitive pressures, but usually having sufficient flexibility, or slack in efficiency, and enough differences in institutional goals and conditions to provide variation in management reactions and in the results that follow from a particular wage increase. Some of the principal institutional factors that influence the pattern of company adjustment to wage change may be summarized as follows: (1) circumscribing provisions and adjustment controls in union agreements, (2) union and other pressures, (3) industrial relations experience and climate, and (4) the company's personnel program and practices.⁷

Role of Product and Suppliers' Markets

Economic circumstances are likely to affect the manner in which a management adapts to a wage change. A manufacturing firm may adjust to a wage increase in one of the following ways: rises in its selling prices,

⁶For management views, see Richard A. Lester, *Company Wage Policies* (Princeton, N.J.: Princeton University Press, 1948), pp. 22-24.

⁷The summary lists appearing in this chapter are, of course, not all-inclusive. Governmental actions or conditions, such as minimum-wage and hours legislation or the climate of government, could be added. It is not inconsistent to explain that both competitive pressures and provisions in labor agreements that reduce labor competition may restrict management.

changes in the quality or composition of its products, an increase in capital investment to help the firm's competitive position, a shift of some of the incidence of the wage increase backward by forcing reductions in materials prices, a curtailment of output, changes in production techniques in favor of laborsaving devices, increases in workers' productivity through management action or through greater work effort, or migration of some of the firm's operations to other areas with labor advantages.

Which of these adjustments, or which combination of them, actually takes place in any particular case will depend, in good part, on the economic forces and institutional circumstances confronting the firm's management.

Competitive and institutional conditions differ from industry to industry and from firm to firm. In some industries the important competitive factor may be skill in buying new materials, including the timing of purchases under conditions of widely fluctuating prices. In other industries competition may be largely in product design and sales, or in production technology, or in labor costs. One industry or firm may enjoy considerable latitude in its wage scales and wage level, whereas in another industry or firm wage scales, or more precisely labor cost, may be the crucial facet of competition. For example, in coal mining the relative height of wage levels may significantly affect employment, sales, and the use of laborsaving devices, yet in flat-glass manufacture increased wages probably would have little, if any, effect on sales to the auto industry, partly because an uninterrupted flow of glass is critical to the auto companies and their demand for glass is practically unaffected by cost changes in the glass industry.⁸

A company is not likely to mark up its selling prices unless it is in a strong position in its product markets and demand and cost conditions in the industry are such that important rivals will take similar action, so that the firm will suffer no significant loss of customers. Cutting costs by reducing the quality or quantity of materials per unit of product or by changing the composition of product lines is an adjustment to wage change that also depends chiefly on the characteristics of the product markets in which the company operates or can operate. Shift of the incidence of higher wages backward to prices of materials can occur only under special conditions in supplier markets.

The other adjustments mentioned depend chiefly on such factors as cost structures, production techniques, and the possibilities of industrial migration, all of which are considered in the next section. Adjustments, if they involve a change in capital investment, may require considerable

⁸ The possibility of glass imports does, of course, constitute one limit on wage increases in domestic glass plants.

time to complete. Differences between immediate, or short-run, adjustments and long-run adaptations are discussed more fully in a later section, although they have some relevancy in the present discussion of product and suppliers' markets.

How a management perceives its alternatives will influence the extent to which it will use the product-market channel as part of the firm's adjustment to a wage change. If the management can assume that the company's competitors will follow its wage increases, it will enjoy some latitude in its pricing and be subject to less pressure to adjust by means of savings in wage costs. The same will be true if the firm is selling in a protected market as part of an integrated operation. For instance, a wage increase in bituminous coal might result in a different short-run incidence of adjustment between selling prices and savings in wage costs for the captive mines of steel companies than for the commercial mines. Also, the methods of pricing in the industry and the degree of monopolistic control in product markets will influence the extent to which the price channel may be used to meet a wage increase.⁹

General economic conditions can affect a management's freedom of action with respect to product pricing. Companies in expanding industries are likely to be in a better position to pass part of a wage increase on to customers than are firms in declining industries. This difference is illustrated by the full-fashioned hosiery industry, which in the 1920's, when it could not satisfy the market, paid increasingly high wages with little difficulty, whereas in the 1930's and 1950's, when the industry was suffering from overcapacity, severe pressure on wage costs caused a variety of labor adjustments. Furthermore, during periods of general prosperity and high employment, it is much easier for a management to make upward adjustments in prices than it is during a business slump, when managements tend to shift the emphasis to savings in expenses.

Changes in a company's wages relative to material costs, to equipment costs, or to labor costs in other lines of production may induce its management to change the firm's product composition, to alter the proportions of output among its product lines, or to enter new product markets. Such adjustments, of course, depend on how alert the management is in perceiving opportunities and whether it is in a position to take advantage of those that it perceives.

Increased sales effort may be a logical reaction to a wage increase on the part of a management whose selling prices remain fixed for a considerable period of time, whose output has been fluctuating well below plant capacity, and whose marginal variable costs per unit of output are con-

⁹The higher-cost women's hosiery manufacturers, for instance, sought to differentiate their product by developing branded lines and novelties and, thus, to create, through customer attachment, a price differential in favor of their products.

stant or decreasing up to full plant capacity. By raising and keeping output near capacity operations, the management may gain the advantages that accompany stability of employment as well as reduced overhead costs per product unit.¹⁰

A rise in wages may also stimulate a management to invest additional amounts in research and in plant and equipment, not only because this encourages the use of laborsaving methods but also because it serves to intensify competitive pressures. In order to meet such pressures and to maintain its market position, a firm may be forced to undertake capital expenditures that are themselves expected to yield only a comparatively small return.¹¹

Shifting of some of the burden of a wage increase backward to material suppliers is perhaps an unusual channel of adjustment. The possibility of such a transfer of the impact of a wage increase depends, in good part, upon the nature of suppliers' markets. The shoe industry has, at times, experienced such a short-run shifting of wage pressures.¹² Leather generally represents over half of the factory costs for shoes and is a by-product of meat production. Consequently, the supply of hides does not adjust with changes in their price or in the demand for them. Therefore the hide market may be vulnerable to pressures from shoe manufacturers. Higher shoe costs and prices may affect shoe sales and be reflected back to the demand for and price of hides.¹³

The foregoing discussion has been primarily in terms of manufacturing concerns producing branded products, a condition in which some management discretion or leeway in adjusting to wage changes is likely to be present in both large and small firms. The adjustments that may occur in other lines, like building construction or transportation service, may be somewhat different. In building, for example, wage increases may lead to changes in specifications in order to save on labor. In railroad transpor-

¹⁰ For further discussion of this point with supporting empirical evidence, see Richard A. Lester, "Shortcomings of Marginal Analysis for Wage-Employment Problems," *American Economic Review*, vol. 36 (March, 1946), pp. 67-82.

¹¹ See, for example, L. G. Norton and J. E. Wall, "The Control and Oversight of Capital Expenditure within Unilever," *Journal of Industrial Economics*, vol. 1 (July, 1953), pp. 242-245; George Katona and J. N. Morgan, "The Quantitative Study of Factors Determining Business Decisions," *Quarterly Journal of Economics*, vol. 66 (February, 1952), pp. 83-89; and J. Lintner, "Effect of Corporate Taxation on Real Investment," *American Economic Review*, vol. 44 (May, 1954), pp. 523-527.

¹² See *Industrial Wage Rates, Labor Costs and Price Policies*, Temporary National Economic Committee Monographs no. 5, 76th Cong., 3d Sess. (1940), pp. 4, 19; L. G. Reynolds *Research on Wages*, Report of Conference held on Feb. 21-22, 1948 at Harvard University (New York: Social Science Research Council, 1948), p. 11.

¹³ Increased wages in the shoe industry may have little effect on the use and design of shoe machinery, which is supplied by one firm, the United Shoe Machinery Company.

tion, higher labor costs may result in the abandonment of some passenger runs or trackage and in greater efforts to increase certain types of freight business.

Since productivity increases tend to make money-wage levels an inclined plane, the discussion has been concerned with the effects of wage increases. Individual firms and industries may, however, obtain wage decreases, even under unionization, through either negotiation or arbitration. A decrease may be tied to certain management action, i.e., with respect to new capital investment, hours of work, production methods, or methods of pay. Often a wage cut is designed to improve the competitive position of the firm or industry. In a period of increasing wages, the absence of any wage rise for a firm or industry (as in textiles, garments, and hosiery for some years in the period from 1946 to 1956) is equivalent to a relative wage decrease, under the circumstances, the consequences of no increase may be much the same as a wage decrease—at least in terms of product competition.

Adjustments discussed in this section, which may depend on a management's perception of alternatives as well as on market conditions, include (1) shift of part of the burden to customers in prices or composition of output, (2) shift of part of the burden to suppliers through prices, (3) increased sales efforts to obtain operations approaching plant capacity, and (4) increased capital investment to maintain competitive positions.

Influence of Other Economic Factors

The likelihood that a company will shift or absorb part of a wage increase may be affected by other economic conditions, such as the cost structure of the firm, its production techniques, labor-supply considerations, and the possibilities of industrial migration. The traditional assumption has been that the burden of adjustment to higher wages will rest on labor through reduced employment.

Cost conditions may help to determine the impact and repercussions of a wage increase. A company may more readily absorb a wage increase if its labor costs are a very small fraction of total costs (as in the production of gasoline) than if labor represents more than half of the production costs (as in bituminous coal). Also, adjustment through reduction in output and employment, perhaps combined with increased selling prices, is more likely to occur where the firm and the industry operate at increasing costs per unit of production than where their operations are at decreasing variable costs per unit up to plant capacity. Operations at increasing costs, as in much logging and underground mining, mean that unit costs may be reduced by curtailing operations. Under constant or decreasing variable costs, on the other hand, management has an incentive to expand output and employment levels until operations approach plant

capacity, for this will serve to minimize unit overhead costs and may help to maintain or improve market positions

The techniques of production may restrict the avenues of adjustment. If the work is machine-paced, little latitude may exist for absorbing a wage increase by means of improved productivity. Certain techniques of production, which allow little variation in the use of labor, may be the only practical means of manufacturing the product. Even where variation in the proportion of productive factors is possible, wage differentials may not be sufficient to induce managements to use a less capitalistic or more labor-consuming method. Executives in interregional firms with plants both in the North and the South have reported that lower Southern wages did not cause them to use production techniques there requiring more labor and less machinery than the proportions used in their Northern operations.¹⁴ Indeed, the properly trained workers required to operate the older, less capitalistic methods may no longer be available. The most up-to-date equipment and plants may also be used because, in decisions with respect to plant design and layout, resale value and long-run output effectiveness may be of major significance. Moreover, as capital investment per worker has increased, more and more stress has been placed on the effective operation of costly equipment.

The dynamics of a firm's labor force may influence its adjustment possibilities. Firms that have been expanding, and still seek to expand, their employment rapidly are not likely to be in a good position to react to a wage increase by tightening production standards and obtaining union cooperation with respect to cost-reducing changes in practices and rules. On the other hand, long-established firms whose total employment has been declining may well achieve such results when any increase occurs in wage rates.

The movement of labor is an adjustment often mentioned in connection with wage levels and wage changes. It is assumed that a relative wage increase will (1) serve to attract to that firm a larger volume and a higher grade of job seekers, and (2) increase the amount of labor supplied by the firm's existing work force in the form of increased productivity.

The second aspect, labor productivity, has already been mentioned. Whether a wage increase stimulates additional worker effort or cooperation may depend on the way that it is introduced and its effects on the balance in the wage structure. Internal wage inequities can have significant adverse consequences for employee morale. On the other hand, a wage increase may provide an opportunity for improvements in the organization or standards of production.

¹⁴ See Richard A. Lester, "Effectiveness of Factory Labor—South-North Comparisons," *Journal of Political Economy*, vol. 54 (February, 1946), pp. 69-70.

Empirical studies seem to cast doubt on the effectiveness of wage increases as a means of attracting a significantly different quantity and quality of job applicants. Movement of labor between competing firms is discouraged by a number of management practices, including antipirating conventions, hiring in only at the bottom jobs, in-plant promotion with on-the-job training, discrimination against mobile workers, and benefits geared to length of service. Investigations indicate that differences in company wage levels are not accompanied by corresponding differences in the volume and quality of applicants, except perhaps at the top and bottom of the community wage structure.¹⁵ Undoubtedly, great relative changes in a company's wage level would have some influence on the supply of labor offered to it. However, with all its existing nonprobationary employees protected from outside competition by seniority, the possibility of a significant change in the character of its work force through altered wage scales is certainly limited in the short run. The possibilities for improving the quality of the work force do, of course, increase with the length of time as well as the size of the relative wage increase, so that the obstacles to short-run adjustment are greater than those for long-run adaptation of a firm's labor force.

Geographic changes in an industry may occur either by transfer of a firm's operations to other locations or by a shift in the industry's output resulting from the withdrawal of inefficient firms or of efficient firms which move into another industry.

The migration of an industry to other localities may be restrained by a variety of economic and institutional elements. Plants may be more or less bound to a location by sources of materials, customer markets, labor-force factors, transportation considerations, previous investment, pricing systems, and spacial limitations on the spread of effective management. In other words, the wage increase has to be significant enough to outweigh numerous other considerations favoring existing plant location. The subject of wage influences on industrial migration is discussed more fully in a later section dealing with the consequences of change in interregional wage differentials.

In summary, the economic factors that may affect a firm's adjustment to wage change fall into the following categories: (1) the character and relative importance of a firm's labor costs, (2) limitations to varying the proportion of labor used per unit of output, (3) obstacles to improving the quality of a firm's labor force, and (4) restrictions on geographic migration of a firm's operations.

This discussion may seem to have stressed economic circumstances that

¹⁵ See Lloyd G. Reynolds, *The Structure of Labor Markets* (New York: Harper, 1951), pp. 161, 218, and Richard A. Lester, *Hiring Practices and Labor Competition* (Princeton, N.J.: Princeton University Press, 1954), pp. 47-51, 73-75.

limit the leeway of management, at least in the short run. The closing of some channels of adjustment, however, does not eliminate all management discretion. Freedom in the use of the remaining alternatives will vary according to the characteristics of the industry, including the ratio of labor to total costs. Firms in the oil industry, for example, which has a low labor-cost percentage, generally enjoy some latitude of adjustment even though wage increases are not likely to cause a change in production techniques, migration to low-wage areas, or improvement in a firm's labor force through recruitment.

Short- and Long-run Adjustment

Many short-run adjustments or changes are said to disappear in the long run. It is claimed, for example, that a normal rate of profit is necessary for continued operation of a firm, so that any temporary squeeze of its profits by a wage increase cannot be maintained. Cyclical economic factors presumably will disappear over a period long enough to include a complete business cycle.

The long run may be defined as a period of time sufficient to permit adjustments that include alterations in the composition, location, and quantity of capital investment. Such alterations would be in the form of change in production methods, change in plant location, and withdrawal of capital from the industry. Presumably, a change in the composition and quality of the work force may also be largely an intermediate or long-run adjustment for well-established firms. With seniority and a marked tendency toward work-life attachment to the firm, as many as two or three decades may be required to make a great change in the composition of a company's labor force.¹⁶

The claim that many "frictional" factors cancel out in the long run needs close examination, however. Do all the various management goals except maximum profit vanish in the long run? Do differences in management policies and in management horizons¹⁷ have no significance over a long period? Do union pressures and limiting provisions in labor agreements have no continued influence on industrial operations and price structures? Is there a normal amount of "looseness," or slack, in management which returns after each short-run tightening-up of efficiency, so that methods improvements and waste elimination induced by wage increases cannot be long-run adjustments? Can incentives like the guarantee-

¹⁶ For an elaboration of this point, along with supporting empirical data, see Richard A. Lester, *Adjustments to Labor Shortages Management Practices and Institutional Controls in an Area of Expanding Employment* (Princeton, N.J.: Princeton University Press, 1955), especially chap. IX.

¹⁷ That is, the future time span covered by management planning and decision making.

teed annual wage and experience rating in unemployment compensation be disregarded in any long-run analysis? Do hiring practices, seniority policy, and the character of competition in product markets have no influence on the ultimate effects of wage change?

Such questions indicate that long-run consequences are not independent of a number of factors that might seem to have chiefly short-run implications. As already stated, the processes of adjustment may themselves generate conditions that influence the final results of a particular wage change. Such institutional factors as employer hiring policies and company attachments of employees are especially likely to have an influence, for they may, by controlling or diverting competitive forces, affect the long-run possibilities of altering the composition of a firm's work force. Such institutional influences may result in obstacles to interfirm spread of labor competition and in diverse company adjustments in the short run that cannot be disregarded in long-run analysis.¹⁸

Although experience indicates that institutional factors can and do play a role in the ultimate consequences of a wage change, studies from which confident conclusions could be drawn are lacking. The growing number of empirical investigations do not cover a sufficiently long period of time to provide a sound basis for generalizations about long-run adjustment.

Short- and Long-run Effects on Technological Changes

Also, comparatively little is known about the effects of wages upon management decisions with respect to technological improvements and capital investment. The few empirical studies that have been made indicate that capital investment is governed by complex influences, any relationships between wage changes and investment expenditures appear to be rather tenuous or obscure.

In the 1930's, a study was made of the importance of wage developments in stimulating technological change in two paper companies, two shoe factories, two cotton textile mills, and the International Harvester Company.¹⁹ Technological changes were found to be a part of a regular process of making savings in overhead costs, in materials costs, and in labor costs, as well as part of a program directed toward improving the quality of the company's products for competitive purposes and keeping up with the technical progress in the industry. Overhead and materials costs were each fully as important as labor costs in decisions regarding technological improvements. The timing of the introduction of such improvements apparently was influenced more by the current phase of the business cycle or the need to change models than it was by the timing of

¹⁸ See Lester, *Adjustments to Labor Shortages*, for illustrative material.

¹⁹ *Industrial Wage Rates, Labor Costs and Price Policies*, Temporary National Economic Committee Monographs, no. 5, 76th Cong., 3d Sess. (1940).

wage changes With a relatively short pay-off period for investment in new techniques—one rule of thumb was that they should pay for themselves within two years—long-run wage-rate (or interest-rate) considerations seemingly played only a minor role, even though it was concluded that in the long run wages “undoubtedly enhanced the rate of their [technological changes’] introduction”²⁰

Any analysis of the investment effects of wage increases is complicated by the presence of conflicting tendencies, which may lead to contradictory conclusions Higher wages can serve to stimulate capital investment by making labor a relatively costly factor of production and, thus, encouraging the use of laborsaving and capital-intensive methods of production On the other hand, wage increases may retard capital investment (1) by reducing profit expectations and hence investment incentives, and (2) by diminishing the volume of retained profits and consequently the supply of funds available to finance new investment, at least from within the company.

Whether the capital-encouraging or capital-discouraging effects will be dominant in any particular firm and at any particular time will depend upon current circumstances The situation in firms with a high percentage of labor costs to total costs may differ significantly from that in firms with a low percentage The answer for a firm or industry may change with alterations in general business conditions

The wage stimulus to increased mechanization of production has not been carefully investigated and would be difficult to discover in some industries Wage increases can, and have, hastened mechanization, especially in industries with a high proportion of labor costs and rather primitive production methods, such as coal mining Often, however, technological advances are so significant in terms of product development or cost reduction that their introduction is not likely to be retarded or promoted by a 10 or 20 per cent difference in the level of wages That is particularly true in the mass-production industries Reference has already been made to a study of interregional firms that revealed no adaptation of the production techniques used in their Northern operations to the lower wage levels in their Southern plants

The effects of wage increases upon management incentives to invest and upon the supply of investment funds also need much more investigation and analysis than they have had Empirical studies indicate that expected profit is not the only incentive for capital investment, that other separate and distinct objectives may play a significant role in management’s investment decisions.²¹ Much investment may be part of the firm’s long-range program of growth and development, designed primarily to

²⁰ *Ibid*, p xi

²¹ See, for example, Katona and Morgan, *op cit*, and Lintner, *op cit*

protect or improve its market and competitive positions and its prestige and leadership in the industry. Some investment may occur almost automatically, such as replacement of worn-out equipment or used-up inventory, and some may be required to eliminate production bottlenecks that have developed or to restore balance in operations following a change in products or methods. Some investment, such as the provision of lunch or recreational facilities and safer or less noisy equipment, may be made for industrial relations reasons.

Wage increases, if met partly from curtailed profits, may reduce the volume of funds available for financing new investment. This is especially likely to be true if management insists on maintaining a dividend record and in restricting itself to internal financing. Even with such limitations, the availability of investment funds is not likely to be a significant check on new investment during periods of prosperous business conditions. When a firm or industry is experiencing a business slump, however, management is inclined to husband funds more carefully, and greater emphasis is likely to be placed on the expected profit return from new investment and less on other objectives.

The proportion of investment that occurs independently of wage considerations is difficult to estimate. Market demand is certainly an important short-run factor in such autonomous investment.²² Undoubtedly much of the investment in research and plant capacity in an industry like the chemical industry, and especially in a large firm such as du Pont, is not affected either in volume or timing by wage levels or wage changes in the industry. Wage increases might have more influence on investment in a declining industry like railroads or in a small-scale consumer industry like the repair and construction of residential housing, but even in these industries general business conditions and market demand seem to have been dominant factors in determining the volume of capital expenditures.

Certainly too little is known concerning the elements involved in management's decisions on capital investment to generalize about the investment effects of wage change. The complexity of the relationships means that any conclusion would need to be carefully qualified.

TYPES AND PATTERNS OF ADJUSTMENT

The variety of adjustments that can occur as a consequence of a wage change has been indicated in the preceding discussions of company goals and of economic and institutional factors. With so many variables and possible variations in particular cases, the combinations and permutations of adjustment may seem almost limitless.

²² See Katona and Morgan, *op. cit.*, pp. 83-86.

Even if the analysis were confined to the four listed management aims, the four listed institutional influences, the four stated categories of labor cost and mobility factors, and some specific categories of product and suppliers' markets, the number of different answers that could be derived from such limited data would be large indeed, especially since most of the items or categories are broad enough themselves to include a considerable range of variation.

Must one conclude, then, that practically anything can happen, that the consequences of wage change may take any one of numerous forms and directions, and that it is impossible to forecast which are the most likely to occur? Does the result differ with the particular circumstances in each case? Or are there types of response which frequently take place—patterns of adjustment with such probability of occurrence that they can be considered major modes of employer adaptation to wage change?

Two approaches offer some help in arriving at answers to such questions. One approach is to examine the chains of possible reaction, observing what the alternative linkages are, how loosely links are connected, and which links are likely to bear the greatest weight of adjustment. In the absence of a systematic statistical investigation, judgments expressed concerning the role that particular links play in the adjustment process can only be opinions formed from one's own and other field studies. The other approach is to describe the two extreme possibilities with respect to adjustment and to explain the influences that may cause a firm to follow a particular path of adjustment between the extremes. Each approach will be discussed separately.

Alternative Linkages in Adjustment Patterns

According to traditional theory, the chain of reaction initiated by a wage rise would be an increase in the firm's wage rates, resulting in an increase in its labor cost per unit of output, resulting in an increase in total unit cost, resulting in a reduction in output and employment. Declines in employment might occur at any one of these steps and—since the analysis is in long-run terms—they might be effected by the substitution of other factors for labor as well as by a reduction in output. With administered product prices, the reduction in output might follow from an increase in costs that causes the company to raise selling prices and thus leads to a reduction in sales. Let us examine each of the links in the traditional reaction chain.

The first link, between wage rates and unit labor costs, may be a loose one, especially where piece rates are not the method of payment. The looseness may result from changes in worker productivity caused by tightened production standards, greater worker effort, or more efficient utilization of labor. Another variable is the substitution of capital for

labor where such alterations in production techniques are feasible and economical Furthermore, variations in the volume of output may change unit labor costs significantly with no change in wage scales²³

The second link, between unit labor cost and unit total cost, may also be weak The relation between labor costs and total unit costs might be presumed to reflect directly the percentage of total production costs represented by labor Variations in the volume of plant output, however, prevent any such presumed relationship Increased volume of production results in lower overhead costs per unit Also, the pressure of a wage increase may provide a stimulus to waste elimination in nonwage items or, as explained in the hide-shoe case, result in reduced materials prices

The dynamics of change may influence both of these links In full employment, the links may be fairly rigid In slack times, however, a wage increase may stimulate strenuous efforts for cost savings Differences in institutional aims or other circumstances may cause managements, confronted with the same wage increases, to react differently With competing firms using different methods of wage payment and having varied ratios of labor to total costs, the consequences of a particular wage increase may be uneven pressures on competitors to make cost savings and, thus, an alteration of competitive relationships in the industry

The third link, between total cost and output, is likely to be even more tenuous than the preceding two With purely competitive markets, a relative increase in a firm's total unit cost is supposed to cause the management either to withdraw from operation or to reduce output, if the firm can thereby reduce total unit costs because it is subject to increasing variable costs With administered prices, the management may choose to raise selling prices, in which case reduced output results from price-induced reductions in sales Alternately, prices may remain unchanged for considerable periods of time and efforts may be made by management to increase sales to reduce unit costs, if the plant or firm is subject to decreasing total unit costs in the short or long run.

As has been noted, reduction of employment is an adjustment that may occur at various steps with the wage increase or later on with substitution of laborsaving equipment or with cost- or price-induced curtailments of output and investment However, differentiated wage increases do not seem to exert much influence on the timing or application of laborsaving equipment, except perhaps in firms that have failed to keep pace with the general level of technological advancement in the industry.

Purposeful curtailment of output and investment is an adjustment that would run counter to the psychology of most managements in firms with

²³ See *Industrial Wage Rates, Labor Costs, and Price Policies*, pp xix-xx and R A Lester, "Equilibrium of the Firm," *American Economic Review*, vol. 39 (March, 1949), p 479

established reputations in product markets and in industrial relations. Work-force reductions not only mean loss of company investment in laid-off employees, but may mean higher unit costs, resulting from the unfavorable productivity effects of employee transfers and demotions, from higher unemployment taxes under experience rating, and from higher overhead cost per unit (because it must be spread over fewer units) Above all, most corporate managements aim to manage successful businesses, which usually means maintaining or improving market positions and the firm's reputation

Examination of the chain of reaction seems to point to product markets and cost structures as of prime importance, in many cases, in determining a firm's adjustment to wage change. The cost structure includes the ratio of labor to total cost, changes in unit cost with variations in scale of output, and long-run flexibility in costs. In agriculture or underground mining, for example, the possibilities of changing costs may be much more restricted by natural conditions than in manufacturing, with the result that increasing costs are often characteristic of extractive industries. Also, differences in costs between competitors may affect the competitive relationships in product markets and the firm's ability to grow and enter new product markets. The factors that influence a company's growth are also likely to influence its ways of adapting to wage change

Adjustment Patterns between the Extremes

The second approach will now be considered. It involves establishing the two extremes in adjustment situations. At one extreme the employment effects of a wage increase are likely to be fairly direct and marked. This is generally the case where the firm

- 1 Is relatively small and insecure and operating on narrow profit margins, so that short-run profit maximization is the dominant company objective
- 2 Is selling its product and buying its materials in highly competitive markets, so that not much of the incidence of a wage increase can be shifted to customers or suppliers through prices
- 3 Has a cost structure in which labor costs are a relatively large proportion of total production costs and piece rates are a prevalent method of wage payment.
- 4 Is unorganized and likely to remain unorganized, so that management is not restricted by the provisions of a labor agreement or by the threat of organization
5. Is in an industry that is not growing and has relatively low investment in equipment per worker, so that the management need not be greatly concerned about retaining a well-trained work force

6. Is relatively mobile, so that migration of operations to another location would not be very costly.

Many of the cotton textile and hosiery mills in the South that produce gray goods approach the extreme at which wage changes are likely to have the most marked employment effects. Also in this same general position, except for their inability to migrate, are many firms in extractive industries, which have a structure of increasing costs.

The other extreme position is that in which the employment effects of a wage increase would be minimal or obscure, particularly in the short run. That situation is likely to prevail where the firm:

1. Is a large concern with well-protected profit margins and a good reputation both with customers and in industrial relations

2. Enjoys a strong position in its product markets and in dealing with suppliers, so that market imperfections may permit the shifting of some of the burden of a wage increase forward to customers or backward to suppliers.

3. Has a cost structure in which time rates are the prevalent method of payment, labor costs are a small percentage of total costs, total costs do not increase per unit of output until operations approach plant capacity, and technical limitations prevent much variation in its labor-to-equipment ratio

4. Is organized, or threatened with organization, so that restrictions exist on the short-run adjustments that can be made in the firm's labor force.

5. Is part of a dynamically growing industry, so that expansions in labor force occur frequently and retention of a well-trained work force is an important competitive factor.

6. Is relatively immobile because of large sunk investments as well as material, market, and transportation ties to the locality

The large firms in the oil and chemical industries meet most of these specifications rather well.

Most firms occupy a position between those two extremes. During recent decades, American industry has probably moved somewhat toward the extreme of minimal or obscure employment effects represented by the large firms in the oil and chemical industries. Some developments pointing in that direction are increased capital investment per employee and expanding use of automation, greater emphasis on employment regularization and good labor relations, reduced flexibility of adjustment as the result of union agreements and established personnel practices, and greater stress on research and sales efforts. Indeed, among the most serious weaknesses in the traditional theory of company adjustment to wage change has been insufficient attention to (1) differences in management

aims, (2) short-run relationships between sales and employment with administered prices, and (3) the dynamics of company growth

With respect to product markets, the traditional analysis correctly stresses the elasticity of demand in the case of a single firm, a part of an industry, or the industry as a whole. Differences in demand elasticity help to explain the varying results of an increase in prices between, say, a textile firm selling gray goods and a large electrical equipment firm, or between the laundry industry, which sells services directly to consumers, and a materials-producing industry like steel or copper, which enjoys an inelastic demand for its product

It is apparent from the discussion of these two approaches, and the preceding analyses, that the characteristics of a firm and its industry greatly influence its pattern of adjustment to wage change. Small firms manufacturing soft goods like textiles and hosiery tend to adjust somewhat differently from large firms operating in heavy industry or producing oil and chemicals.

Certain chains or channels of adjustment are likely to be associated with particular company characteristics. The variables are, however, usually too numerous and too complex to permit any categorical answers. Apparently we must be content—at least for the present—with some knowledge of the factors that explain differences in company adjustment to wage increases and some understanding of the conditions that result in particular sets of consequences. Theoretical developments in this area depend mainly on additional knowledge about the processes of adaptation and growth in individual firms.

EFFECTS OF WAGE DIFFERENTIALS AND CHANGES IN DIFFERENTIALS

In dealing with the economic effects of wage differences and the incidence of alterations in these differentials, the differentials to be considered can be classified for convenience as follows (1) differences among occupations in a firm's wage structure, (2) differences among plants located in the same community, and (3) differences among plants located in different areas or regions.

Problems of Comparison

Any attempt at precise measurement of interfirm wage differentials encounters difficult problems of job comparability. A job has many facets including the physical working conditions, job duties, promotion possibilities, steadiness of employment, overtime earnings' possibilities, methods of payment, fringe benefits, pace of operations, type of supervision, and friendliness of atmosphere in the work place. Seldom would

a job in two different firms be exactly the same on all counts, and, as Ross points out in chapter 7, different attributes of a job (such as wages and fringes) cannot be completely substituted for one another. Attempts at interfirm or interarea comparisons also raise questions concerning the relative weight to be given to particular jobs in each firm's job hierarchy or in each locality's or region's wage structure.

Interfirm or interregional comparisons also involve the question of whether the two work forces are completely comparable in quality. The quality of a work force can hardly be assessed apart from a particular setting or set of conditions. Past experience and training have influenced its effectiveness, so that changes in supervision, composition, plant layout, or location would be likely to affect its productivity.

Such difficulties of comparison will be largely disregarded in the discussion that follows. Precise measurement of differentials is not necessary for an analysis of the economic consequences that flow from the existence of wage differentials or from contraction or expansion in such differentials. It is well to bear in mind, however, the many dimensions of a job and the importance of the development of a work force in a particular setting, because both have a bearing on management and worker adjustment to differentials and to changes in them.

The impact and adjustment will vary with the type of wage differential and the type of wage change. A firm may have a relatively low starting rate and relatively high rates for skilled maintenance jobs, in a nearby firm the reverse may be the situation. A uniform cents-per-hour increase in wages would be likely to have different consequences in those two firms, the same undoubtedly would be true of a uniform percentage increase across the board.

Differentiated wage changes have become common in the years since 1948, with skilled workers frequently receiving the largest cents-per-hour increases. In some industries (such as steel) an effort has been made to maintain a certain relative spread in pay among wage classifications and between the top and bottom manual jobs in the plant; in other industries (such as the railroads), nondifferentiated wage increases have continued since World War II, compressing the wage structure and reducing percentage differentials. The same average money increase in wages may have varying effects, depending, for example, on the extent to which it serves to compress the wage structure and on the extent to which the firm's wage structure had previously been compressed.

In terms of economic consequences, a sharp distinction should also be drawn between a general wage increase that applies to all occupations and firms in a locality or industry and an increase in the legal minimum wage that affects directly only the bottom occupations in the low-paying firms, even in that small fraction of industry, the effects of an increase in

the legal minimum are uneven because of existing variations in starting rates, and other low rates, among the firms in an industry or a locality. Any analysis of the consequences of a uniform minimum wage must take account of the fact that normally its effects are differentiated firm by firm and that the initial impact is limited to a small fraction of an industry or of an area's industrial employment.

Occupational Differentials

What may be the consequences to the firm of having improper occupational differentials or of narrowing or broadening the spaces between the rungs on the wage ladder? What economic effects follow from alterations in internal wage relationships?

One test is that of demand and supply. Can a sufficient amount of labor be recruited to fill any jobs that open up? Another test is that of labor productivity. What effects do changes in the wage structure have on output per payroll dollar?

Not only does the recruitment test raise questions concerning the qualifications and quality of labor, but as Livernash implies in Chapter 6, it has become increasingly less satisfactory as a criterion for judging balance in the wage structure. In most organized plants, seniority establishes an order of priority in qualifying for promotion, so that being qualified for a higher-paying job means having the requisite seniority. Also, jobs above the bottom rungs on the occupational ladder may be filled solely by in-plant promotion, and the training for them may be only on-the-job training. Under such circumstances, a job may be but one of a series of steps up the promotion stairway and may not be considered by employees as an independent unit standing alone. Therefore, market testing of wage rates for higher-paying jobs may be absent or, at least, attenuated.

Even for jobs near the bottom of the job hierarchy, the recruitment test may be rather unsatisfactory. The reason for this is that manual workers in manufacturing, after a year or two of employment, tend to become job-bound, or at least plant-bound, by such ties as seniority, which controls employment opportunities and benefit rights, and on-the-job training, which has value only for the present employee.²⁴

Given such promotion and employment practices, the consequences of inappropriate occupational differentials may be revealed, not in current recruitment difficulties, but in low employee morale, poor performance

²⁴For empirical studies indicating the extent of such company attachment, see L G Reynolds, *The Structure of Labor Markets* (New York: Harper, 1951), C A Myers and G P Shultz, *The Dynamics of a Labor Market* (Englewood Cliffs, N J: Prentice-Hall, 1951), and Richard A Lester, *Hiring Practices and Labor Competition* (Princeton, N J: Princeton University Press, 1954).

on the job, a large number of grievances, and bad union-management relations. The secondary consequences may be poor management morale and reduced ability of the firm in the future to use its existing work force to recruit new employees.

Under these circumstances, the impact of alterations in occupational differentials may not only assume a variety of forms but take a long time to have its full effect. An attempt to improve the balance in a firm's wage structure according to, say, a broadly based job evaluation, may clash with some of the employees' views of the proper wage relationships in that firm and meet resistance from overpaid employees who want to maintain their preferred positions. Efforts to change existing wage relationships, which may have no justification except historical accident and custom, can engender resistance and discontent among the employees affected. Use of labor productivity as the test for internal wage structures may mean that more attention must be paid to workers' notions of equity and fitness than to objectively determined facts or to market forces. Therefore, the success of a reform in company wage structures may depend largely on the skill of the management (and the union if the firm is organized) in working out and explaining the need for the change.²⁵

If the productivity results of any revision of a firm's wage structure vary with the way that changes are introduced and managed, the administrative aspects may play a greater role than the market forces in determining at least short-run results. And some effects that may appear to be only short run, like wage grievances and employee attitudes, may actually have far-reaching consequences for union-management relations or for management's flexibility of adaptation, because they may influence provisions in the firm's labor agreements.

The difficulty of generalization about adjustments to internal wage change in a company with seniority and in-plant promotion is evident from this brief discussion. Because a range of discretion exists, and because the processes of administration and employee reaction are so important, there is no single "right" or equilibrium wage structure for a firm. The test of the correctness of internal wage structures must be the pragmatic one of workability and acceptance by the parties. What is acceptable and workable in one plant may not be in another plant with identical economic conditions. And as institutional attachments and barriers to inter-firm mobility expand, nonmarket factors become of increasing importance in determining the consequences of changes in the internal wage structure of firms.

²⁵ The role of "administrative" and "institutional" considerations in the determination of company wage structures is explained in detail by Livernash in Chapter 6. He points to the need for a varying blend of "internal" and "external" influences in accounting for particular occupational relationships.

Local Differentials

The consequences of local wage differentials, and of changes in them, depend at least in part upon the reasons why those differentials became established and have continued to exist. The same is true of wage differentials between regions.

Genuine wage differentials between two local firms may arise for a variety of historical reasons. The two firms may have started operations or expanded their employment in the community under quite different conditions of stringency or looseness in local supplies of labor. One firm may be a small independent and the other may be part of a large national company and have its wage scales influenced by that fact. The two firms may have been organized by different unions, so that the lower-wage firm may have the top scale among concerns organized, say, by the novelty workers, whereas the higher-wage firm may be organized by the auto workers and be considered by that union to be among its relatively low-scale companies. The head of the company at the time may have deliberately chosen to be a high-wage or a low-wage employer for some nonmarket reason or reasons, or for a market reason that no longer applies.

Whatever the historical facts, the economist asks why economic forces have not eliminated such wage differentials. One explanation, of course, may be that over the course of time adjustments have occurred that permit or support these interfirm wage differences. The adjustments could include differences in methods of payment, in earnings' opportunities, in production standards, and in the quality of the work force. In short, the two firms may not have a real differential in wages.

Genuine wage differentials may continue, however, because of differences in company managements, restrictions on labor mobility, or the existence of other institutional factors already discussed. Company managements differ in their horizons, their policies, and their skill in administering industrial relations. For a particular wage or benefit program, one management may be able to obtain greater productivity than another management can, even though both may receive the same compensation. Interfirm mobility of management is too limited to bring about adjustment of management abilities and pay.

Labor mobility may also be ineffective in reducing differences in wage rates for comparable work in two local firms. As discussed earlier, labor agreements frequently require that efforts be made to fill all except starting jobs by in-plant promotion, with bidding and with consideration of bids in order of seniority. Under such circumstances, new employees generally have to start at the bottom of the occupational ladder despite their previous experience in the industry. Such arrangements discourage

interfirm transfer In addition, firms may have special understandings not to hire away each other's employees.²⁶

In some localities or industries, neither market forces nor institutional factors operate to reduce established interfirm differentials. A study of job applications and wage-mobility responsiveness in the Trenton, New Jersey, area seems to indicate that wage differentials between local firms, even in the same product line, can continue to amount to 10 or 15 cents per hour, or to 10 or 15 per cent, without causing noticeable effects on labor mobility, labor supply to the firm, or labor morale within the firm.²⁷ In other words, a sort of no-response area may exist within that spread or range in some industries. Beyond such a difference, perceptible consequences do or would occur, taking such forms as poor employee morale, loss of skilled maintenance workers, high turnover among recently hired employees, or even difficulties in union-management relations. Developments that change the wage-paying ability of firms or alter conditions within the union can, of course, cause partial or full elimination of interfirm differentials that had been stable for a considerable period of time. In chapter 7 Arthur M. Ross has explained in some detail the factors that generate changes in the external wage structure.

Suppose a marked reduction should occur in wage differentials between competing firms located in the same community. What would be the likely consequences of such action?

The adaptations that a firm's management might make to such a change would be influenced by its internal situation as well as by external circumstances. The factors that explain the existence of such differentials, of course, have a bearing on the possibilities of adjustment. Since many of the considerations involved in an examination of the effects of compression of interfirm differentials locally also apply for competing firms located in different regions, the local and regional cases can, for the most part, be discussed together.

In either case, the consequences, laborwise, of a narrowing of wage differentials will depend largely on whether the firm has created or can create a range of management discretion in the type and timing of any adjustments. As already explained, large oil and chemical firms enjoy more management discretion than do small cotton textile or hosiery concerns, the steel industry probably has a greater range of "no employment effects" than does the laundry industry.

Whether a management does, or can, enjoy considerable discretion is contingent on factors such as the following: (1) the firm's competitive

²⁶ The author's study of hiring practices in Trenton, New Jersey, indicated the prevalence of such policies and arrangements. See Lester, *Hiring Practices and Labor Competition*.

²⁷ See *ibid.*, especially pp. 84-85.

position, present and prospective, (2) its current and anticipated financial position, (3) the size and suddenness of the relative wage changes, which influence the degree of shock and the time span for adjustment, (4) the reason for reducing differentials—whether government edict, union pressure, or management decision to achieve particular aims, (5) the firm's ability to obtain some reciprocal advantage from its employees or unions, (6) the restrictions on management actions contained in any union-management agreement, (7) the firm's cost structure and, therefore, the degree of looseness in cost-price relationships, (8) the feasibility of altering labor-equipment ratios for cost reasons, (9) the place of the firm's scale in the community's wage hierarchy, and (10) the firm's possibilities for changing the quality of its labor force

The bearing of these items upon the consequences flowing from reduced differentials is fairly evident from the analysis in preceding parts of this chapter. Restrictions on competitive forces help to create zones of no response. To the extent that the firm has enjoyed a special labor-cost advantage, the adjustment may merely mean elimination of that favorable factor. A firm's financial ability to pay and any looseness in its management may also provide a cushion. A large relative reduction in differentials may call forth a somewhat different program of adjustment than would a small reduction. Gradual reduction may, however, have less shock effect and, therefore, provide less stimulus to managerial innovation. The cause of the reduction and the climate of union-management relations in the firm may also enlarge or limit the adjustment possibilities and influence the way that management actually adapts to such a wage development. Similarly, the other factors mentioned may condition the management's response to relative wage changes.

Consideration of the numerous influencing factors serves to reemphasize how circumstances vary and how their variation affects both the range of possible adjustment and management's selection from among the alternatives. A single wage change may result in a succession of choices, which are not so narrowly restricted or precisely channeled as is assumed in the traditional analysis.

Every management is, of course, subject to economic limits on its actions. Some managements are much more limited than others. A particular management may be fortunate enough to have a number of channels of adjustment open to it at the time, and some of the channels may have quite wide openings. To some extent, however, the openings in adjustment channels may be elastic, subject to stretching by the management itself. Consequently, when changes in relative wage levels temporarily alter competitive relations in an industry, the repercussions arising from such a change may not be rigidly fixed at once, but may depend partly on subsequent developments in the process of adjustment.

Regional Differentials

The foregoing analysis of local differentials can be equally well applied to regional wage differentials in an industry producing for national markets. And the factors explaining the existence of geographic differences in wage scales are likewise important in any investigation of the economic effects of reductions in such differentials.

Study indicates that historical accident and industry convention have played a considerable role in the existence or nonexistence of regional differentials in an industry. In recent years there have been practically no North-South differences in wage levels, for example, in the automobile, aircraft, railroad, glass, paper, and seamless hosiery industries, while in other industries, such as rubber tires, lumber, furniture, full-fashioned hosiery, fertilizer, and food, wage rates in Southern plants have averaged 20 per cent or more below Northern averages for comparable jobs. Moreover, there has been little tendency during the past half century for North-South wage differentials to expand or contract together in different industries during particular periods of time. And North-South wage differentials vary widely among firms producing for the same market, in many industries, a number of Southern plants have been paying wage scales for comparable work that are as high as the average paid in competing Northern plants. Consequently, in industries like cotton textiles, furniture, and women's hosiery, the interfirrm wage differentials in a single Southern metropolitan area may be greater than the average North-South differential in the industry.²⁸

Under such circumstances, managements of Southern plants competing in national markets and enjoying a marked North-South wage differential may have a significant range of discretion. That Southern managements, even in highly competitive manufacturing industries, enjoy some latitude of choice is indicated by the replies of executives in forty-three Southern concerns producing cotton garments, furniture, and other soft and hard goods. In 1945, they were asked about the adjustments they would make to a 50 per cent reduction in their wage-rate advantage over competitors in the North, which for the group as a whole would have meant an average increase of 11 per cent in their wages with no change in Northern rates. In order of their importance, the adjustments stressed in the replies were: (1) improvements in efficiency through better production methods, organization, supervision, incentives, work loads, etc., (2) installation of laborsaving machinery (stressed particularly by firms with

²⁸ For data in support of the statements in this paragraph, see the various articles summarized in Richard A. Lester, "Southern Wage Differentials: Developments, Analysis, and Implications," *Southern Economic Journal*, vol. 13 (April, 1947), pp. 386-394.

high ratios of labor cost to total cost), (3) increased sales efforts in order to expand sales and production, and (4) change in the price, quality, or kind of products manufactured. Curtailment of output or reduction in operations was mentioned by only four of the forty-three managements.²⁹ Although the study left something to be desired in terms of depth of investigation, it clearly revealed that types of adjustment neglected by conventional theory may be of considerable significance in many cases.

Other studies provide supporting evidence for the conclusion that labor adjustments do not occur so readily and smoothly between regions as orthodox analysis might lead one to believe. Not only is the same type of machinery used by firms in all regions, but evidently the ratio of workers to machinery in new lower-wage Southern plants is no different from the ratio in competitive Northern plant.³⁰ Interviews with executives in 188 Michigan plants concerning locational factors and industrial mobility indicated that "because of inertia, personal attachments, the cost of moving, and the uncertainties about other locations, very strong incentives have to be present in order for grievances and irritations to lead to action."³¹ In some types of manufacturing "the production process is such that location, within wide limits, is economically unimportant", in other cases "a firm may be able to out-engineer and outsell its competitors from a wide variety of possible locations."³²

Compression or elimination of interregional wage differentials may not result in reduced employment in that part of an industry located in the "disadvantaged" lower-wage region. Any adverse labor-cost consequences may be offset by dynamic management policies. For example, improvements in management, stimulated by wage minimums under the Fair Labor Standards Act, apparently help to explain the absence of any relative decline in employment in the furniture and cotton-garments industries between 1938 and the spring of 1941, despite contraction of North-South differentials in those industries.³³

Similar findings are contained in a recent study of the effects of the practical elimination of the North-South wage differential in bituminous coal, which is a highly competitive industry with labor representing ap-

²⁹ See Richard A. Lester, "Shortcomings of Marginal Analysis for Wage-Employment Problems," *American Economic Review*, vol. 36 (March, 1946), pp. 75-81.

³⁰ See C. B. Hoover and B. U. Ratchford, *Economic Resources and Policies of the South* (New York: Macmillan, 1951), pp. 400-401. The authors indicate (p. 410) that there is some less reliable evidence that wages have not been a major cause for the location of particular manufacturing plants in the South rather than in another region.

³¹ Katona and Morgan, *op. cit.*, p. 81.

³² *Ibid.*

³³ See Richard A. Lester, *Labor and Industrial Relations* (New York: Macmillan, 1951), pp. 367-368 and the footnote references on those pages.

proximately 60 per cent of total production costs Despite increasing wage uniformity in coal from the 1920's to the 1950's, employment in the South expanded while it was declining in the rest of the industry. Evidently a relative increase in output per mine worker in the South, due in part to an accelerated rate of mechanical advance, and a shift in coal markets in favor of Southern location both help to account for the relative employment gain in the South³⁴ Under the circumstances that result does not, of course, conflict with conclusions based on orthodox theory. But the point is that even in an industry with as severe limits to nonlabor adaptations as soft coal managements seem to have some flexibility, some choice between alternatives

Geographic shift of a firm's operations is generally a measure that managements resort to with considerable reluctance This is so partly because a shift usually involves abandoning some investment sunk in buildings and a trained labor force. Thus it may seem to be an admission by the management that serious mistakes have been made For such reasons, management often seeks first to exhaust the possibilities in other directions As the replies of the Southern executives indicate, these include improvements in production methods, in product mix, and in sales programs.

SOME GENERALIZATIONS

Our examination of the adjustments that managements may make to wage changes has revealed the complex nature of the subject Nevertheless, it is possible to extract some conclusions of a rather general character.

Economic forces are not as limiting or controlling as theorists assume. Market forces may be more restricting in some firms than in others, and, in the same firm, may exert more restraint at one time than at another time Institutional factors may be as important as economic ones in limiting (or even freeing) management decisions

Managements generally enjoy some latitude of action, some choice among alternatives, in adjusting to a wage change. The way that a particular management does adjust is likely to depend, in part, upon its horizons and the aims it seeks to achieve.

Business management is essentially a continuous process Therefore, it may be a mistake to think in terms of a single, timeless adjustment Management's reaction to a wage change may take the form of a series of decisions over the course of time, the timing itself and the repercussions of each decision may affect the over-all result

In analyzing the adjustment, or adjustments, that may be adopted,

³⁴ G. G. Somers, "Effects of North-South Wage Uniformity on Southern Coal Production," *Southern Economic Journal*, vol. 20 (October, 1953), pp. 121-129

attention needs to be paid to the elements influencing company growth. Management may strive to maintain a firm's position in an industry even at the expense of maximum profit per dollar of investment. Furthermore, the relationships between wages and capital investment are complex and obscure.

Examination of the linkages through which repercussions from wage decisions are supposed to spread contributes to an understanding of the variables in the problem. As an alternative approach, guidelines can be constructed by establishing the two extreme positions—one in which wage change is most likely to have direct effects on employment, and the other in which management enjoys considerable leeway, so that wage-employment relations are tenuous or are frequently of secondary importance. Although they cannot provide precise answers, both approaches help to classify particular firms by types of reaction situation.

In seeking to determine the effects of changes in internal wage structures, a recruitment test may be of little value except for hiring-in jobs. More valid may be a productivity test which, in addition to market forces, allows for institutional factors and the art of administration. For internal wage changes, effects on employee attitudes and on union-management relations may be more significant than are demand and supply considerations.

The consequences of a narrowing of interfirm differentials locally seem to depend mainly on the range of discretion that a management may enjoy or can create for itself. Insights can be gained from an analysis of the factors that limit or facilitate the development of latitude for a firm's management.

The effects of reductions in regional differentials also will vary with the amount of leeway that a management has. Influences affecting industrial location are complex, historical and institutional factors can be controlling in many situations.

Stress has been placed on areas of discretion and factors that may lead to divergent results. Simple answers are mentally satisfying. But in the long run it is more helpful to recognize the qualifications to one's answers than to be misled by abstract solutions that prove illusory.

PART THREE

National Wage Movements

9. *The General Level of Wages*

Whether it is feasible or desirable to construct a comprehensive theory of wages is questionable. At the plant level, wage determination enters as a prominent element in the economics of the firm. When plant wage levels are grouped to provide industrial or geographical averages, one becomes involved in industrial economics and the general theory of competitive markets. At the most general level, the average movement of all money-wage rates is a necessary part of a theory of money, prices, and income determination. The main line of cleavage is between aggregative economics on the one hand and various levels of disaggregation on the other. At each level, wages enter as a component of a broader theory rather than as an independent entity.

WAGE LEVEL AND WAGE STRUCTURE

From another viewpoint, however, all wage phenomena are related. This is obviously true in a statistical sense. Our basic wage measurements relate to rates or earnings for particular groups of workers in individual establishments. These are then averaged to provide measurements for various occupational levels, industrial categories, geographical regions, and—at the summit—all wage earners in the economy. The general average cannot change without at least one rate at the base of the structure having changed, and vice versa. Behind this statistical relationship lie more basic causal relationships. The process of wage determination in individual establishments—for example, the prevalence and strength of union organization—may influence the general pace of wage advance. Conversely, monetary and other aggregative changes in the national economy are bound to exercise a tug on wage levels in particular plants.

These interrelations are likely to be overlooked because of the present specialization among economists. Labor economists tend to focus on wage determination in the plant or industry in isolation from general forces of change in the economy. At the other pole, aggregative theorists frequently make assumptions about general wage movements which are unrealistic in terms of wage-determining institutions at the plant level. It is desirable to build as many bridges as possible between macro- and

microanalysis of wages, and to do this is a major purpose of the present volume. Several of the preceding chapters have dealt mainly with the determination of particular wage rates and their relative movement over the course of time, with problems of "wage differentials" or "wage structure." The main emphasis of the present chapter is on the average movement of all wage rates, but this should be regarded as an extension of the earlier discussion rather than as a shift to a different subject.

Relationship of the Particular and General

It is appropriate at this point to pay tribute to the slipperiness of the word "wages," which can mean half a dozen different things—basic wage rates paid per hour or per piece, average straight-time hourly or weekly earnings, actual hourly or weekly earnings including overtime as well as various fringe payments, the cost of labor per unit of output, which is affected by charges for pensions and other deferred benefits as well as by current payment, real-wage rates or earnings derived by adjusting for price-level changes, annual earnings or even lifetime earnings. Throughout this chapter, the term "wage" consistently refers to basic rates per hour or per piece. When it is desirable to emphasize the divergent movement of related variables, this will be made clear in the context.

The movement of particular rates and of the average wage level are related in at least four ways:

1 A general wage movement begins in certain sectors of the economy and is then transmitted with varying lags to other sectors. The growth points of the wage structure are likely to be found in expanding industries, new firms, high-profit firms, tight occupations, piece-rate occupations, and in firms which have committed themselves to automatic wage escalation under long-term contracts. The location of these growth points and the nature of the transmission mechanism will influence the size, rapidity, and uniformity of the rise in the wage level. Countries with a centralized wage-determining mechanism, such as France or Sweden, show more uniformity in the timing and size of wage increases than do countries like the United States or Canada.¹

2 A general wage change in the strict sense would involve an increase or decrease of all basic wage schedules by the same absolute or percentage amount. While such a wage movement is conceivable, one never finds it in practice. There is usually considerable dispersion in the movement of particular rates, which rise or fall by varying amounts. Actual wage movements thus involve a change in structure as well as in level. In Western industrial economics over the past fifty or sixty years, the marked rise in the average wage level has been accompanied by a

¹ See on this point John T. Dunlop and Melvin Rothbaum, "International Comparisons of Wage Structure," *International Labor Review* (April, 1955).

reduction of almost every kind of wage differential, measured in percentage terms. It is not obvious *a priori* that this must be so, and the reasons for the tendency deserve further study.

3 Conversely, any alteration in wage structure may set up a chain reaction which will alter the wage level. If workers in one occupation or industry succeed in raising their relative wage position, workers in related occupations are likely to seek increases designed to restore the previous relationship. This drive to "maintain historical differentials" has not been powerful enough to prevent substantial changes in differentials over the past several decades, but it is still a force to be reckoned with. Because of it, a wage increase in one sector tends to spread through the channels described in earlier chapters until the whole wage structure is set in motion.

4 Consequently, it is difficult to restrain the general wage level so long as the earnings of particular groups are allowed to rise. During the late forties, the governments of Britain and Sweden persuaded the trade union federations in those countries to cooperate in a policy of "wage restraint" as part of a broader anti-inflation program. Both experiments were abandoned after two or three years. An important reason was that the earnings of certain groups, notably pieceworkers, continued to creep up, which provoked complaints of inequity from those whose earnings were more tightly controlled by the wage-restraint policy. When these complaints became sufficiently serious, the policy was abandoned and all groups were left free to scramble for position. Similar difficulties were encountered in the United States during World War II. The National War Labor Board's policies of allowing "substandard" wages to be raised on equity grounds and of allowing certain wage increases to meet manpower bottlenecks in the war economy intensified the difficulty of restraining the average wage level.

As we proceed to consider the general wage level, then, it should constantly be borne in mind that we are dealing with the varied but articulated movement of a multitude of specific wage rates. We are trying, as it were, to get a three-dimensional view—to observe the "carpet" of wage rates from above and to see how this carpet pushes upward, now at one point, now at another, over the course of time.

SHORT-TERM MOVEMENTS IN THE WAGE LEVEL

It seems most useful to begin a discussion of short-term movements with the behavior of wages under conditions of rising aggregate demand. This is the situation which has prevailed most of the time since 1940 and which one hopes will be the predominant situation in future years. Recent theoretical and policy discussions have been concerned largely with con-

ditions of expansion As a hedge against the future, however, problems of economic contraction will be considered briefly at the end of the section

Wage Behavior during Expansion

Even apart from union pressure, which will be examined at a later stage, one must expect that labor costs will begin to rise early in an expansion period and will continue to rise so long as the increase in aggregate demand continues There are several reasons for this

1. Within the normal range of plant capacity, an increase in production volume means a more than proportionate rise in profits because of the operation of overhead costs This whets workers' appetites on the one hand while, on the other hand, it lowers employers' resistance to cost increases

2 Expansion of aggregate demand brings price increases, particularly for commodities priced on open markets and subject to speculative influences. The wholesale price index, and later the retail price index, begins to creep up. This increase in living costs causes workers (and their wives!) to take a lively interest in higher wages.

3. Even before basic wage schedules are raised, labor costs may rise for a variety of reasons. If marginal cost curves have the saucer shape usually attributed to them in economics textbooks, expansion of production will necessarily mean rising marginal costs Apart from this possibility, which may not be very important in practice, there are other factors at work As labor becomes scarcer, employers are forced to relax their hiring specifications and draw poorer workers into employment Individual "merit" increases and promotions are dispensed more liberally and jobs are upgraded in order to attract and hold labor in a tight market The amount of overtime work increases Incentive systems are less tightly administered and the earnings of incentive workers pull farther ahead of their base rates The degree of flexibility in these respects is not commonly recognized.

4. As the expansion proceeds, basic wage schedules also begin to rise. Low-wage firms and industries which were able to attract sufficient labor from the ranks of the unemployed find this source drying up and are obliged to raise wages. At the other extreme, profitable and high-wage firms find themselves able to afford wage increases and may take the lead without waiting for pressure from workers and competitors A leapfrog movement develops among employers, those at the top of the wage structure trying to maintain their customary position and those at the bottom trying to pull closer to the leaders in order to compete effectively for labor Once this movement is well under way, it tends to influence virtually all sectors of the economy

There have been efforts to determine the "critical" level of unemploy-

ment below which a rise in the money-wage level will begin.² Such calculations, however, must be viewed with considerable caution. The average hourly earnings figures ordinarily used in United States studies do not move at all closely with basic wage schedules or unit labor costs over short periods. The estimated number of unemployed, and particularly of full-time unemployed taken alone, is not a precise indicator of changes in the demand for labor. It is not certain, either, that changes in unemployment are more closely related to the money-wage level than are changes in the price level and other relevant variables.

To the extent that unemployment is important, it is the unemployment rates in local labor markets which are most significant. Normally, unemployment rates vary considerably from one city to another. Whether unemployment rates in key wage-setting areas (Detroit, Pittsburgh, Seattle, San Francisco) are low or high may be more important than the national average of unemployment. More detailed statistics for individual labor markets are needed for fruitful exploration of this problem. But one must recognize the importance of industry differences as well as of local labor-market differences. Falling demand and heavy unemployment may have more effect on wages in industries like clothing than in industries like steel because of differences in cost structure and competitive practices.

Wages and Prices

Once wage schedules have begun to rise, they will continue to rise throughout the expansion period. Continued expansion will involve a complicated process of increases in employment, production, monetary circulation, price levels, and wage levels. The difficulties begin when one attempts to dissect this process, to determine what is cause and what is consequence. Employers frequently argue that it is wage increases which have caused the rise in the price level, while unionists argue with equal sincerity that they are simply trying to catch up with previous price increases. What is the role of wages? Are they cause, consequence, or both?

The answer clearly depends on the institutions of the economy under discussion, and may vary from time to time within the same economy. One can readily construct a case in which wage changes could be regarded as the "cause" of price-level changes. Suppose that wage changes are exogenously determined, with no reference to the level of employment or any other economic variable. Let us say that union leaders are

² Joseph W. Garbarino, after examining data for the largely nonunion period from 1890 to 1929, concluded tentatively that "the non-union wage level has been approximately stable at some level of unemployment between 8 and 12%." The unsatisfactory nature of the data, however, was clearly recognized. See *American Economic Review*, vol. 40 (December, 1950), pp. 893-896.

united in demanding a 5 per cent increase in money-wage rates every year and that there is no effective employer opposition to this policy. Suppose further that all product prices, including agricultural prices, are set on a cost-plus basis, so that wage increases are immediately and fully reflected in the price level. Suppose, finally, that the monetary authorities will not check the price rise for fear of provoking a relapse of employment and are willing to expand the monetary circulation indefinitely. Under these conditions one could say that wage decisions determine both the money supply and the price level. Hicks' suggestion that we are now operating on a "labor standard" instead of a gold standard would be fully warranted.³

It is doubtful, of course, whether a system of this sort could operate smoothly for any length of time. An economy heavily dependent on foreign trade would encounter balance-of-payment difficulties unless other nations were inflating at approximately the same rate. Even in a relatively closed economy, such as that of the United States, it seems unlikely that inventory fluctuations and other cyclical relapses could be postponed indefinitely by an expansionist monetary policy. Further, a regular and foreseeable advance of the price level would certainly be discounted, and this could lead to cumulative inflation and collapse of the currency.

Suppose, at the other extreme, that the monetary authorities are committed to price stability and will tolerate whatever level of unemployment is implied in this objective. Suppose that all products are sold in competitive markets and that labor is priced without union or governmental intervention, each employer following a demand schedule based on labor's value productivity in his establishment. In this sort of world it would be realistic to regard the price level as primary, with specific wage rates and the average wage level following as mere corollaries.

Any actual economy will fall somewhere between these "pure types." The American economy in 1955 is probably still closer to the competitive pole than to the other. Unionism is strong, but far from all-inclusive. Union leaders do not set their wage demands independently of the economic environment. On the contrary, they are quite responsive to the level of aggregate demand. Strong elements of price competition remain in most product markets. The monetary-fiscal authorities have shown increasing concern for price stability and no disposition to underwrite chronic inflation. On the whole, then, it is more realistic to regard the American wage level as a consequence than to consider it a causal force in itself.

This is not to deny that the size and speed of wage adjustments will affect the course of an inflationary process. To take an extreme case, sup-

³ In his 1955 presidential address to the economics section of the Royal Society.

pose that wage rates could be held constant while monetary expansion continued. This would almost certainly have a braking effect on the inflation—at the expense, to be sure, of wage earners' living standards. On the other hand, institutional devices which increase the frequency of wage adjustments will add to the momentum of an inflationary movement.

Economic expansions in the United States do not follow an explosive course, as they would tend to do in a wage-dominated economy. On the contrary, they taper off (except under war conditions) in a relatively short period of time. The rate of increase in aggregate demand slackens, which dampens the rate of increase in prices and production, which tends to bring wage increases to a halt. This supports the view that American wage movements are essentially of a secondary or derived character.

Wages and Employment

Neoclassical models of the economy were constructed in real terms, with the real-wage level related inversely to the level of employment. A change in the money-wage level was presumed to change real wages in the same direction. Keynes argued that it is more plausible to assume that a general change in money-wage rates will be offset by a change in the price level, leaving real wages unaltered. Employment will be affected only in so far as the altered wage-price level changes the demand for money and the rate of interest. Subsequent writers pointed out that an altered wage-price level, by changing the real value of asset holdings, might also shift the consumption function—the so-called "Pigou effect."

There are two separate problems here. First, is it true that a sudden displacement of money wages will not have any effect on real wages? This is certainly closer to the truth than the neoclassical view, but it is not entirely true. A sharp increase in the wage-price level does tend to transfer income to wage earners from other groups with fixed or very sluggish incomes—salaried people, rentiers, pensioners.⁴ The employment effect of such a transfer depends, among other things, on whether the marginal propensity of wage earners to consume is larger or smaller than that of the groups from whom income is transferred. If the marginal propensity to consume is approximately constant at all income levels, the effect on employment may be negligible. One can also find cases, though these are not common, in which a sharp increase in the wage level appears to have produced a transfer from profits to wages. The repercussions of this kind of transfer are more complex, depending not only on the way the income is used by wage earners compared with how it would have been used by business concerns or stockholders but also on the effect

⁴ On this range of issues, see Chapter 10, by Clark Kerr.

of a lower profit level on business expectations and investment behavior. It is easy to construct alternative models which will bring one out with either a lower or a higher level of employment, but we do not yet have an adequate empirical basis for choice among these alternative hypotheses.

Second, assuming that wage-level changes are fully compensated in the price level and that there is no redistribution of income, how is a changed wage-price level likely to affect employment? Keynesian and post-Keynesian reasoning lead one to expect the same inverse relation found in neoclassical models, though for different reasons. A higher wage-price level will tend to reduce employment by raising interest rates (Keynes), by increasing the propensity to save (Pigou), and—if one considers external trade relations—by reducing exports relative to imports. For the opposite reasons, a drop in the wage-price level will stimulate employment.

The practical usefulness of such reasoning, however, is severely limited by its equilibrium character. The essence of employment fluctuations is disequilibrium and uncertainty. A rising wage-price level, as Keynes recognized, is likely to induce business optimism and to cause firms to revise their output and investment plans upward. This effect may be powerful enough to outweigh the considerations outlined in the preceding paragraph. Similarly, a falling wage-price level may induce an expectation of further declines, a reduction of expenditure plans, and a drop in employment. This is not to deny that a substantial “once and for all” drop in the wage-price level, if it could be achieved, might have a favorable effect on employment. This is not the form which deflation actually takes, however, and the gradual sagging of wages and prices which one finds in reality seems likely to have an unfavorable effect.

One must conclude that there is still no firm basis for predicting whether a general wage increase (or decrease) will have a positive or negative effect on employment. Whatever the direction of the effect, it will probably not be very large. It does not appear that a general wage increase can contribute materially to recovery from depression. The most careful study of the wage- and price-raising policies followed in 1933–1934 concluded that they had a neutral or slightly negative effect on economic recovery.⁵ Once a high level of employment has been reached, it seems impossible to specify any behavior of the money-wage level which will assure a continuation of full employment. Nor does it seem that wage changes can be used successfully to check the course of a recession. Even if the general wage level were subject to control then, wage changes could scarcely serve as a major instrument of stabilization policy. This point needs emphasis because undue reliance is often placed

⁵ Leverett S. Lyon and others, *The National Recovery Administration* (Washington: Brookings Institute, 1935), chap. XXXIX.

on the money-wage level in popular discussion, and this is likely to divert attention from more fundamental policy issues.

The Influence of Collective Bargaining

The influence of collective bargaining on wage rates is easiest to demonstrate at a microcosmic level. One can show that in a particular plant the rates for certain jobs have been raised relative to those for other jobs or that personal differentials among workers in the same job have been eliminated or regularized, or that the whole plant wage-level has been raised relative to other plants in the same industry. As one moves up to broader wage averages, however, it becomes increasingly difficult to demonstrate any specific effects of unionism. It is debatable, for example, whether collective bargaining has had any marked effect on the average size of interindustry wage differentials, occupational differentials, or geographical differentials in the United States over the past generation.⁶ When one comes to the general level of money-wage rates, it is difficult to show that its movement under collective bargaining differs materially from its movement under nonunion conditions. In short, as the importance of the problem increases, the influence of collective bargaining either actually becomes less or at any rate becomes harder to detect and to demonstrate.

There are several ways in which collective bargaining may change the behavior of the money-wage level during expansion periods.

1. Under collective bargaining, wage increases may begin earlier in an expansion period than they would otherwise. One should not exaggerate the contrast with nonunion conditions. Wage increases will in any case begin fairly early during an economic expansion, for reasons already suggested. Under collective bargaining, however, they may begin even earlier, and at a lower level of employment, and may be generalized more rapidly throughout the economy.

2. As expansion continues, unionism may produce larger wage increases than would occur under nonunion conditions. It is sometimes argued that the roots of union wage policy are extraeconomic, that union leaders feel compelled to deliver a certain minimum increase to their members every year regardless of the economic situation because, if they do not do this, the organization will deteriorate or they will be supplanted by rival aspirants to union office. One can certainly find situations in which factional rivalry within a union has produced policies which are clearly uneconomic, or in which rivalry between two unions

⁶ See in this connection the papers by Clark Kerr and Lloyd Reynolds at the 1954 International Economics Association conference on wage determination. See also Lloyd G. Reynolds and Cynthia H. Taft, *The Evolution of Wage Structure* (New Haven: Yale University Press, 1956), chaps. 7, 12.

has enforced a strict parallelism of demands. For the most part, however, the forces governing the size of union wage demands seem to be the same forces which produce wage increases under nonunion conditions. They include the movement of living costs, business profits, unemployment, and labor supply. If living costs are rising, profits are substantial, and labor is scarce, the unions will certainly move for substantial wage increases. But these are precisely the conditions under which wages would rise rapidly in the absence of unionism. It remains to be proved that the increases secured through collective bargaining are substantially larger than those which were "in the cards" on economic grounds.

Empirical evidence cannot be conclusive on this issue because it involves a comparison of what is with what might have been. It is suggestive, however, that the rise in the money-wage level between 1939 and 1954 was not appreciably greater in Britain and Sweden, where unionism is old and strong, than it was in Canada and the United States. Within the United States, strongly unionized industries did not make larger wage gains during this period than weakly unionized or nonunion industries. It is possible, of course, that "wage leaders" in the unionized sector were forcing up the money-wage level at an abnormal rate and that nonunion industries were compelled to keep pace by the tightness of the labor market. But the facts are also compatible with the view that the rate of wage advance was dictated mainly by monetary policy and price-level changes and that union and nonunion industries alike were carried along by the tide.

3. Collective bargaining may affect the *frequency* of general wage increases during expansion. This point overlaps with the preceding one, since the rate of wage advance per unit of time is the product of the number of increases and the size of each increase. It is usually claimed that collective bargaining increases the lag of wage rates on both upswings and downswings, since a union contract pegs wages for a certain period while the nonunion employer is free to change wages every month if he chooses. This is probably true, but the degree of lag depends on the specific contract provisions. Cost-of-living escalations calling for quarterly adjustments tend to shorten the wage lag, as do clauses which permit frequent "wage reopenings." An annual contract with no reopening clause probably produces a longer wage lag than would exist under nonunion conditions. This effect is intensified by still longer contract periods. The five-year contract which the United Automobile Workers signed with General Motors in 1950 probably produced a smaller total increase in wages over the period 1950 to 1955 than the union would have been able to achieve through annual bargaining. (This is no criticism of union policy, which could scarcely have anticipated the outbreak of the Korean War. In the circumstances of early 1950, with the postwar boom

apparently ended and substantial unemployment in existence, the five-year contract with its guaranteed annual increases appeared a good "buy" for the union.)

We may sum up as follows. Collective bargaining *may* somewhat increase the normal upward "tilt" of the money-wage curve. The contrast with nonunion conditions, however, is not so marked as has sometimes been suggested. During an expansion period, unions do not appear to insist on wage settlements substantially larger than are "in the cards." Even if they should do so, the results may well be offset by the effect of fixed-term contracts in lengthening the wage lag. There is little indication, in short, that unionism adds markedly to the momentum of inflationary movements.

The popular impression to the contrary is based partly on the special circumstances of recent years. It is true that since 1933 most unions have been able to deliver substantial wage increases in at least two years out of three. This is mainly due, however, to the fact that the unions have developed during an unusually prolonged period of economic expansion and price inflation, associated with war and near-war conditions. It does not mean that unions will insist on large wage increases under conditions of stability or contraction. Indeed, they did not do so in 1938, 1939, 1949, or 1953. Nor is it clear that the leaders of a well-established union will feel the same necessity to deliver constant economic gains that they may have felt during the organizing period. Campaign promises are not so essential when the campaign is over.

Wages during Contraction

While the foregoing discussion was in terms of rising employment, it is well to remind ourselves that periods of economic contraction are not obsolete. During the past twenty years maintenance of a high and stable level of employment has won acceptance among economists, businessmen, and political leaders as a major objective of economic policy. Moreover, because of one major and one minor war, with their concomitant prewar preparations and postwar booms, we have actually had very high employment since 1940. Thus we are in danger of assuming that we have somehow passed out of the cyclical world of the past into a full-employment millennium. This outlook, reminiscent of that of the twenties, could lead to serious disillusionment when we next enter a major recession. One should recognize that we are not yet able to foresee and avert recessions, though there are more built-in brakes on depression than existed in the past and we should be able to pick ourselves up off the floor more promptly.

The problem of wage behavior during depression, therefore, should not be dismissed as one of mere historical importance. Wage rates and

labor costs tend naturally to be sticky during a cyclical downswing, but the degree of rigidity should not be exaggerated. During a severe recession lasting for a year or more, wage rates are cut in sectors of the economy in which competitive pressure is strong and prices have dropped markedly. Even a cessation of wage advances may mean a reduction in labor cost of several per cent per year because of rising productivity. In addition, labor costs are reduced during recession by more careful selection of employees, elimination of overtime, conservatism in promotions and merit increases, tighter piece-rate administration, and other ways. While the cost structure resists the downward pressure of product prices, the floor does yield when the pressure becomes severe.

It is commonly assumed that collective bargaining increases the downward rigidity of labor costs, but evidence on the matter is scanty. The presence of a union doubtless postpones or retards general wage cuts, particularly in small-scale competitive industries. Unionism may also make it more difficult for employers to reduce labor costs by tightening piece rates, weeding out inefficient workers, revising production methods, and the like. A union naturally resists economies for the firm at the expense of individuals or groups in the labor force. At the same time, few unions will carry their resistance to the point of shutting down the plant. Unions are sensitive to employment considerations—not in terms of the national economy, but in terms of preserving the jobs of their members in a particular local. When drastic action is necessary to this end, union officials will often cooperate in "selling" cost-reduction measures to the workers concerned.

Rigidity of basic wage schedules during recession periods is probably desirable. It is really pointless to argue that cutting the wage-price level sharply and then stabilizing it at a lower level would lead, via the Keynes effect or the Pigou effect, to a higher equilibrium level of employment. This kind of wage-price cut is not a practical possibility. What actually happens under nonunion conditions is that wages sag slowly in a way which creates maximum uncertainty and damage to business confidence. Wage cuts are followed by price cuts. After a few months the cycle is repeated. If the recession lasts long enough, it may be repeated again and again, with no real benefit to firms' profit positions. This is surely an odd way to promote economic stability. The problem clearly has to be attacked at the opposite end. Aggregate demand must be lifted through monetary expansion, which will relieve the downward pressure on the price level and restore adequate cost-price margins.

Under nonunion conditions, wage schedules are probably more flexible than is really desirable. Union efforts to prevent general wage cuts may help both to maintain confidence in the price level and, by ruling out the false remedy of wage reductions, to direct attention toward proper

recovery policies. Unions may do some harm during depression by opposing other types of cost reduction which are reasonable in themselves and which would help to break the impact of recession on the firm. The indications are, however, that unions do not typically carry this opposition to the point of producing a plant shutdown.

THE LONG-TERM MOVEMENT OF WAGES

Long-term tendencies grow out of the short-term movements already discussed. If wages rise during economic expansion but do not fall during contraction, the trend of wages will necessarily be upward. This has been the actual tendency in all industrial economies for the past century and more. Are past trends likely to continue into the indefinite future, possibly at an accelerated rate? What rate of increase in the wage level is desirable and feasible over the long run?

The Feasible Rate of Increase in Real Wages

The tendency for many wages to rise faster than prices and for real wages to increase decade after decade is a necessary feature of a progressive industrial economy. What determines the feasible rate of increase in real wages, i.e., the size of the "gap" between the wage and price trend lines? For simplicity, assume first that the price trend is horizontal and also that there is to be no redistribution of income between wage earners and other groups in the economy. These restrictions can readily be relaxed at a later point.

The feasible rate of real-wage increases is most commonly defined with reference to trends in man-hour output, but it is not clear that this is the best approach. Man-hour output data are available only for certain sectors of the economy. Man-hour output in manufacturing, the most commonly used figure, is not a reliable indicator of man-hour output for the economy as a whole. Nor do the statistics of man-hour output have any clear conceptual meaning. In particular, they do not correspond closely to the concept of "marginal productivity of labor." While there is an interesting resemblance between the trend of certain man-hour output measures and certain real-wage indexes over long periods,⁷ this can scarcely be taken as a "verification of the marginal-productivity theory." A practical objection to basing a definition of feasible wage behavior on productivity concepts is that such a definition is certain to be misapplied. Designed for the economy as a whole, it is bound to be transferred to individual industries and companies where it is inappropriate and misleading.

⁷ See on this matter W. S. Woytinsky and Associates, *Wages and Employment in the United States* (New York: Twentieth Century Fund, 1953), chaps. 7-8.

A better starting point, perhaps, is the rate of increase in per capita national output of consumer goods and services. If the per capita income of wage earners (and of each other functional group in the population) rises at precisely the same rate as the physical volume of consumable goods, then our conditions of price stability and avoidance of income redistribution should be satisfied.⁸ This still does not tell us, however, what should happen to basic wage schedules. There are several reasons why wage schedules should move differently from per capita consumable output.

1 Part of the increase in national output comes about through the transfer of workers from low-productivity to high-productivity industries—for example, from agriculture and service occupations to manufacturing. This increase in output is presumably offset by increased earnings of the transferred workers in their new occupations, and to use it also as a basis for a general increase in wage schedules would involve double counting. Increases in output from this source should be deducted, therefore, in calculating the feasible rate of wage advance.

2 It is the rate of increase in *earnings* which should correspond to the rate of increase in consumable output, adjusted in the way just suggested. Earnings, however, may tend to outpace basic wage rates for a variety of reasons, particularly during a period of sustained high employment. In this case, nominal wage schedules should rise less rapidly than per capita output.

3. Per capita wage earners' income is affected by labor-force participation rates and, if these have changed significantly over the period studied, a further adjustment is necessary. This factor, unlike the two previous ones, may operate in either direction. If labor-force participation rates have been rising, then wage schedules should have risen less than per capita income. If participation rates have fallen, the opposite will be true.

Additional complicating factors result from secular changes in the length of the work week and work year and in the proportion of labor income distributed through fringe benefits rather than through direct wage payments. On balance, it seems likely that the rate of increase in per capita consumable output considerably overstates the feasible rate of advance in basic wage schedules, but one cannot be certain without a more detailed investigation.

The Possibilities of Income Redistribution

What happens if we abandon the assumption that income distribution remains unchanged? Is it possible to achieve a substantially higher rate of

⁸This is, of course, a very rough statement of the case. It implies further assumptions about the distribution of income between spending and saving, and it ignores the government sector and the distinction between pretax and posttax incomes.

increase in real wages by transferring income from other groups in the economy?

The redistribution in question here does not involve transfers through government budgets, which is the most important redistributive mechanism in practice. We are dealing rather with direct redistribution of pretax incomes through manipulation of the money-wage level. What happens if the wage level is raised more rapidly than the "feasible" rate of increase defined above? The price level will rise, assuming a flexible money supply. But is this all that will happen? Or will wage earners make net gains in the process?

It is clear that a rapid rise in money-wage rates is associated *mainly* with price level changes and that there is no close relation between money-wage movements and real-wage movements. To take an extreme case between 1939 and 1954, the money-wage level approximately tripled in Sweden, Britain, and the United States, while the French wage level increased something like twenty-five times. The increase in real wages, however, was much less in France than in the three other countries.⁹ Simple marking up of the money-wage level, then, is not necessarily an effective way of raising real wages.

This conclusion should not be pushed to the point of denying that wage-price inflation can have *any* influence on real wages. One may accept the fact that real-wage changes are linked basically to physical output, while at the same time leaving room for moderate distributive shifts. A sharp increase in the money-wage level seems likely to raise workers' income relative to those of other groups in the economy in one or more of the following ways:

1. Through a rise in wages relative to salaries. During an inflationary movement, low wages tend to rise faster, on a percentage basis, than high wages, and wages as a whole tend to encroach on salaries. This may produce a substantial redistribution of income toward, as well as within, the wage-earning group.

2. Through a decline in the real income of groups whose money income does not respond, or else responds very slowly, to price changes. Recipients of rents, fixed interest payments, annuities, and pensions are obvious examples. An inflation shifts income from such groups to the "active" groups in the economy—agriculturists, industrialists, traders, and wage earners—whose real incomes may all be able to rise simultaneously. If the inflation is severe, this kind of shift can be quite important. In France, for example, revenues from rent, interest, and dividend payments dropped from 12 per cent of personal income in 1938 to 3 per cent in 1953, while the share of wage and salary payments rose appreciably.¹⁰

⁹ Reynolds and Taft, *op. cit.*, chaps. 8-12.

¹⁰ *Annuaire statistique de la France, 1953* (Paris: Institut National de la Statistique et des Etudes Economiques, 1954), pp. 343-344.

3. A transfer from profits to wages is less likely, for industrialists rely on the normal progress of productivity to offset rising money wages. Moreover, the conditions which make for an unusually rapid increase of money wages are also favorable to an increase in prices and sales volume. Occasionally, however, one finds indications of a substantial shift away from profits. Phelps-Brown¹¹ has noted that profit rates in Britain typically fluctuated between 10 and 11 per cent from 1870 to 1914. There was a sharp drop during and after World War I, and from 1924 to 1939 the profit ratio moved mainly between 7 and 9 per cent. At the same time, the ratio of wage earners' incomes to the average incomes of all occupied people in Britain, which had fluctuated between 85 and 95 per cent from 1870 to 1914, moved upward and fluctuated between 95 and 105 per cent after 1924.

Phelps-Brown¹² explains this shift on the ground that the strong deflationary pressure after World War I "encountered trade unions whose membership had doubled since 1914, and who put up strong resistance to wage cuts. Though in one sense generally defeated, they succeeded in keeping the fall in money wage rates less than the fall in product prices. Thus a market environment, pressing downwards against a trade union floor, had much the same effect as trade unions pressing upwards against a market environment ceiling." He argues that there is a strong conventional element in profit margins and that when the business community has become accustomed to a certain level for many years this level will develop strong inertia and tend to be maintained. The inertia can be broken, however, and the profit ratio can be displaced to a new level by some striking development, such as wartime inflation or postwar deflation.

The British experience after 1914 must still be rated as exceptional. More typical has been the experience in Britain and the United States during the period from 1939 to 1955, when a tripling of the money-wage level failed to bring about any transfer from profits to wages. These are cases, in Phelps-Brown's terminology, of wages pressing upward against a "soft" market environment in which cost increases could readily be translated into price increases.

The possibility of raising real wages through redistribution of income is obviously limited. In a market economy, at least, there is some lower limit to the relative decline of salaries and property incomes. The possibility of raising real wages through output increases, on the other hand, is unlimited in principle.

¹¹ Henry Phelps-Brown "The Long-term Movement of Real Wages" (To be published in the forthcoming report of the 1954 International Economic Association conference on wages)

¹² *Ibid.*

The Movement of the Price Level

Thus far we have been talking about the movement of money wages *relative* to the price level. But what about the "tilt" of the whole wage-price diagram? How is the price level likely to move over the decades ahead?

Economists have tended to regard stability of the general price level as both desirable and feasible. Suppose, it is argued, that money wages in all industries rose evenly at the "feasible" rate defined in an earlier section. Under competitive conditions, industries with a less-than-average rate of technical progress would face rising unit costs and their prices would rise. Industries with above-average technical progress would have falling prices and, on balance, the price level would remain unchanged.

This model, however, is scarcely a realistic one—at least in the American case. Studies of the interindustry wage structure reveal a tendency for wages to rise more rapidly in industries showing a high rate of productivity increase, so that part of the gains which might otherwise be passed on to consumers in lower prices are retained by wage earners. Absence of severe price competition in some industries may also retard the transmission of productivity gains. Thus, while one can count on prices rising in backward industries, one cannot count on their falling in progressive industries, and this produces an upward bias in the price level.

It is not certain that price-level stability is even a desirable objective in existing circumstances. Given the fact of upward pressure in some sectors of the economy, a stable price level implies downward pressure on incomes in other sectors to an extent which may be inequitable and harmful. The price stability from 1952 to 1955 in the United States, for example, was achieved in part through a substantial decline in agricultural incomes.

In any event, the price level seems likely to rise over the long run, and differences of opinion center mainly on the probable rate of increase. The future of the price level depends on a complicated set of considerations: the prospects of international peace, the vigor of private investment, which is the most important single influence on the height and duration of prosperity periods, the vigor and nature of the government's economic stabilization policies, the value placed on price stability by political and economic leaders and by the general public, and the extent to which trade unions demand and secure wage increases larger than are compatible with price stability. This last factor is difficult to appraise because we have as yet had little experience with strong unionism in the mass-production industries under peacetime conditions. Reasons were given in an earlier section for thinking that collective bargaining does not have as

much impact on the money-wage level as has sometimes been suggested My judgment would be that between 1945 and 1955 the money-wage level rose little, if any, more than it would have risen under nonunion conditions

The likelihood that unionism will grow stronger in future decades must of course be considered, but one can find about as many reasons for concluding that stronger unionism will retard the advance of the wage level as for thinking that it will accelerate wage increases Solidly established leaders in mature unions may not feel obliged to press as aggressively for wage increases as do leaders whose hold is more precarious Consolidation of rival unions in the same industry, which will doubtless increase as a result of the AFL-CIO merger, will reduce the incentive for competitive wage demands Longer-term contracts and built-in escalator features, while they maintain a steadier pressure on employers, do not necessarily increase the average rate of wage advance over long periods Concerning the net effect of stronger unionism, then, it is probably wise to suspend judgment until more evidence has accumulated

Probable Rise in Price Level

Assessing these factors as best one can, and assuming that no major war occurs, it seems likely that the price level will rise only slightly—say, something like 1 per cent per year on the average—over the next several decades This is contrary to the tenor of some recent predictions, which envisage a marked secular increase in the price level These predictions appear to be unduly influenced by the events of the forties, just as previous hypotheses of chronic stagnation were unduly influenced by the thirties Even economists tend to project the recent past into the future in a way which a longer view of history does not warrant

The “long boom” of 1940 to date has been quite abnormal, being built on a sequence of World War II—postwar restocking—Korean War—defense expenditures, plus a large backlog of technical innovations accumulated during the war years It is scarcely reasonable to expect private investment to continue with the same vigor into the indefinite future If this should happily be the case, it is pertinent to note that during the present boom the general price level remained almost constant from early 1952 through 1955 This experience, plus a similar experience in the period from 1922 to 1929, suggests that a high level of private investment and employment is not necessarily incompatible with stable prices The effect of government stabilization activities is difficult to judge Efforts to check recession will probably become increasingly effective, but to the extent that the government attempts to stabilize booms as well as recessions, it may actually damp down the rate of price advance.

A moderate secular increase in prices implies a more rapid rate of increase in money wages. If the price level rises 1 per cent annually over the next generation, one should expect an average increase in basic wage schedules of perhaps 3 per cent.¹⁸ This would mean a 1980 wage level slightly more than double the 1955 level, a prospect which is bound to look improbable and faintly alarming until after it has occurred.

The Detailed Movement of Wages

Any statement about average wage trends is dangerous, for it may be misused as a target or guide in specific situations. The inappropriateness of this procedure should be emphasized. It would be unfortunate if every wage in the economy rose at exactly the same rate. It is probably desirable for wages to rise more rapidly in expanding than in declining industries in order to assist reallocation of the labor force. There are many other reasons why the proper size of wage differentials will change over the course of time. The wage structure always contains inequities and anomalies, which can be corrected only if there is flexibility for different wages to advance at different rates of speed.

One must expect, too, that the *average* rate of increase in money wages will vary a good deal from year to year. There will be recession years in which the wage level will not increase and may even decline slightly. During boom years the rate of increase will rise above the long-term average. These irregularities could be eliminated only by regularizing the rate of growth of national output. Without this, efforts to regularize the advance of wages by formula cannot be very successful. Cost-of-living escalator clauses, whatever their usefulness during inflation, are typically abandoned when the price level stabilizes or declines. The UAW-General Motors 1950 contract, which provided for an "annual improvement factor" as well as a cost-of-living escalator, was an interesting attempt to ensure a regular rate of increase in real wages. This sort of guarantee, however, will probably be undertaken only by unusually efficient and profitable enterprises during periods of good business. It is doubtful whether it is feasible or wise to enforce a predetermined wage increase during recession years.

Wage-setting formulas, in short, are typically adapted to special situations and to short periods of time, and break down when one attempts to

¹⁸ This figure is merely intended to be illustrative, but it may not be too far from the mark. Woytinsky estimates that per capita real income rose at a rate of 2 per cent per year from 1879 to 1950. There is some evidence that the rate of increase has accelerated since 1940 and that per capita real income may rise more rapidly in the future than in the past. On the other hand, we have shown reasons why *wage schedules* should be expected to rise less rapidly than workers' average *earnings*. For a careful discussion of this range of problems see Woytinsky, *op. cit.*, chap. 8.

use them generally Irregularity of wage movements from year to year is a natural accompaniment of a growing and unstable economy

COMMENTS ON WAGE POLICY

It is standard procedure to conclude a discussion of wage behavior with a section on how wages ought to behave, usually entitled "Wage Policy," though it is often not clear to whom the policy prescriptions are addressed. The concept of wage policy may have meaning in certain kinds of economy, but it is doubtful whether it can have much meaning in the United States at present. The government exerts a direct influence on minimum wages but not on maximum wages. There is no coordination of wage policy within the labor movement, nor is there any clear focus of wage leadership among employers. A discussion of wage policy, then, comes down to what the author would like to do about wage behavior but is not able to do.

This is not to deny that government can influence the movement of the money-wage level. Government can of course do this, but it does it by shifting aggregate demand through monetary-fiscal policy. If it is believed that the wage-price level is rising too rapidly, government has the option of tightening monetary controls, making it less likely that cost increases can be passed on to consumers, and thus giving employers a stronger incentive to resist wage demands. This raises a series of familiar problems—whether it is possible to "taper off" an inflation smoothly without provoking recession, whether stable prices are worth a lower level of employment, what fiscal or monetary measures are most appropriate, and so on. Any positive monetary policy raises these issues, however, and they are in no sense the product of collective bargaining.

Is wage policy bound, then, to transform itself into monetary policy, leaving the labor economist with nothing to do? This would be a sorry conclusion, and we do not actually need to go this far. First, there are interconnections between the wage-determining institutions of a country and the behavior of the wage level and wage structure. Exploration of these relationships could keep one employed for a considerable number of years. A key question is whether a strongly centralized labor movement following a "solidaristic" wage policy (as in Sweden, Norway, and Holland) makes for a more or a less rapid rise in the wage level than does a decentralized labor movement (as in the United States and Canada). One can think of good a priori arguments on both sides of this question. What are the facts? What lessons can one draw from experience in other countries? Should the possibility of more interunion collaboration on wage policy in the United States be viewed with hope or with alarm?

Second, while exploration of desirable criteria of wage behavior may

have little practical impact at the moment, the importance of such activity over the long run is very great. Economists have often failed to have much influence in the past because they have maintained intransigent and largely negative positions, insisting, for example, that trade unions cannot deflect wages from the levels prescribed by "natural law" or that unions can influence wages but that this influence is undesirable or that government wage regulation is bound to be harmful. There has also been a regrettable neglect of what may be termed "wage engineering," the area lying between very general propositions about marginal productivity at one extreme and the detailed work of the time-study man at the other. As this area is explored and systematized, one may hope for a growing consensus among both scholars and practitioners concerning the proper grounds for wage adjustment. More realistic college education and adult education on these matters will also gradually create a climate of opinion which will influence collective bargaining and other wage decisions.

Third, there is much room for exploration of the relations between labor mobility and labor-market engineering on the one hand and wage behavior on the other. Great immobility of labor may force expanding firms and industries to bid up wages rapidly, leading to sympathetic increases at other points and an undesirably rapid advance of the money-wage level. Measures to increase mobility and to prevent recruitment bottlenecks, in addition to being good in themselves, may do much to improve the behavior of wages.

10. Labor's Income Share and the Labor Movement¹

Over the past century generally, but particularly in recent decades, the industrialization of the world has given rise to organized labor movements. These labor movements have varied greatly in their ideological orientations and in the environmental contexts in which they operate. But, almost universally, they have promised a redistribution of income, at the least in favor of their members, and at the most of the total working population. Nevertheless, labor's share of national income has remained more nearly constant than almost any other economic variable in society. Keynes thought this stability was "a bit of a miracle."² If Keynes and the statistics are right, the world has probably seldom seen so much expenditure of effort, emotion, and invective with so little result.

What has happened to labor's share, and—to the extent that anything has happened at all—what effect has the labor movement had? These are not easy questions to answer. First, there must be adequate statistics covering long enough periods in a sufficient number of countries before entirely definitive conclusions can be reached, and this information is clearly lacking. One has to rely on statistical data primarily for the United States and Great Britain. Second, so much more is changing in a dynamic economy than just the amount and the direction of the power of the labor movement that it is impossible to single out with any great degree of precision the impact of this factor alone. Third, theoretical convictions or class prejudices have often stood in the way of realistic approaches to these questions; some answers were desperately desired in advance. Fourth, as we shall see—and it is the central theme of this chapter—great

¹ Melvin K. Bers and Donald J. Blake, of the staff of the Institute of Industrial Relations, University of California (Berkeley), were helpful in the development of this chapter. This chapter contains some ideas developed by the author in an earlier paper which appeared in the *Papers and Proceedings of the Sixty-sixth Annual Meeting of the American Economic Association*, vol. 44, no. 2 (May, 1954).

² J. M. Keynes, "Relative Movements of Real Wages and Output," *Economic Journal* (March, 1939).

difficulty has arisen out of the way the question has usually been phrased
Can trade unionism increase labor's share or can it not?

THE CONTROVERSY OVER UNION EFFECTIVENESS

A great confusion of tongues has resulted Some economists have taken one position and equally reputable ones another Trade unionism both can and cannot, or so it is said This controversy starts a long way back—in fact, with the rise of economics as a separate and respectable discipline—and has involved a great many people during the intervening century and a half or more. But it is really not such a complex and confusing controversy as it might at first seem The different theorists can be placed in four categories according to whether they believe the basic forces at work are "natural" or social laws and whether they feel that the problem should be approached as one involving economic classes or individuals (and small groups) Certain consequences for the assumed impact of the labor movement on labor's share flow from each of these orientations

Natural-Class Theorists

The first group in point of time formed the "classical school" of Smith, Ricardo, and Malthus, among others They thought there were certain "natural" laws at work which governed the income shares of large functional classes—landowners, laborers, capitalists The real share of the laborers was determined by the goods and services necessary for subsistence times the number of laborers, it could never rise much above this or fall much below this in the long run The money share was set by the cost of these goods and services, mainly by the cost of food This is why Ricardo, in particular, was so opposed to the corn laws which held up the price of food in Great Britain and why he so favored free trade. If the price of food could be reduced, labor's share would be smaller, then the share of profits would rise, and this would mean more investment and thus more progress This greater progress might lead to a temporarily higher "market" than the "natural" rate of wages, and this higher "market" rate might even become enough of a custom to establish a higher "natural" rate.

Combinations of laborers could only have a negative effect By raising wages, they would reduce profits and thus impede progress, and in the long run labor's absolute share would be lower Social policy should be directed toward reducing labor's relative share so that, over the course of time, its absolute share would be greater, the abolition of tariffs on food (mostly grain) was the means to accomplish this. In the world today, perhaps the Russians have most closely followed this social policy cheap food (grain) permits low wages, which make possible heavy invest-

ment in industrial and military progress; the cheap grain, however, has been obtained not through low tariffs but forced collectivization of farmers.

Social-Class Theorists

Marx accepted the class-share approach of the classical economists, but he believed that "social laws" relating to the class structure of society, rather than natural laws, were the fundamental force fixing the rates of rent, wages, and profits. Wages were held at subsistence levels, in fact, by the impact of the "reserve army" of the unemployed. As society progressed, more and more "surplus value" became available to the capitalists, exploitation of the workers increased, and labor's relative share was constantly reduced. Trade unions could achieve little, if anything. The entire social structure had to be changed before the workers could get their fair share of national income, which Socialists have tended to identify as the "whole product."

Among more modern approaches are some which resemble that of Marx. Kalecki wrote that "the distribution of the product of industry is at every moment determined by the degree of monopoly,"³ and he believed that the degree of monopoly tends to increase in the long run. In the United States and Great Britain, labor's share failed to fall only because raw material prices were falling to offset the rise in monopoly power; but if basic raw material prices do not continue to fall, "the relative share of manual labor will tend to decline."⁴ Labor's share remains stable over the business cycle because changes in raw material costs are offset by variations in the degree of monopoly. Trade unions can gain a bit in a depression by holding wages rigid and thus reducing monopoly profits, but this is a minor factor, and any advantage through governmental redistribution efforts is likely to be minimal in a capitalist system.⁵

Dobb also holds that trade unions can increase labor's share to the extent that they can reduce the degree of monopoly, but he believes that their power to do this will probably not be very great "short of more sweeping institutional changes in the economic system itself."⁶ Boulding, somewhat similarly, though much more mildly, has written that "distribution depends on decisions and mainly on the decisions of capitalists" and that "the history of trade unionism, and the evident impotence of trade unions in increasing the share of labor in the national income, are telling tributes to the accuracy of this insight."⁷

³ Michael Kalecki, *Essays in the Theory of Economic Fluctuations* (New York: Rinehart, 1939), p. 24.

⁴ *Ibid.*, p. 34.

⁵ *Ibid.*, p. 92.

⁶ Maurice Dobb, *Wages* (New York: Pitman, 1952), p. 152.

⁷ Kenneth E. Boulding, "Wages as a Share in National Income," in David McCord

Kalecki, Dobb, and Boulding all hold to the "class-share-determined-by-the-actions-of-capitalists" approach to income distribution, and thus to a largely negative view of trade union influence, but none of them, contrary to Marx, contends that capitalists will decide to hold wages at minimum subsistence levels. The "actions-of-capitalists" theory of distributive shares would seem to find its realistic expression most readily in an economy where one or a few very large employers have effective control, as in certain Central American "banana" countries or Middle East oil economies or in the Belgian Congo or South Africa, and in South Africa Douglas did find labor's share substantially below what the marginal-productivity theory would indicate.⁸ In all these instances there is substantial independence of action for the "capitalists" in both the product and the labor markets, and thus quite a degree of "free will" in what they do.

Natural-Individual Theorists

Natural-individual theorists are at the opposite extreme from those who speak of class shares determined by capitalists. They see an atomistic world where the decisions of all participants affect supply and demand and thus determine individual income. They are interested in personal distribution rather than in class shares, although personal incomes can be added together by their major source to get functional shares. Certain "natural laws" or, perhaps better, physical relationships, primarily the law of supply and demand, govern income distribution among individuals. This is the world of the neoclassical economist—of Walras, Clark, Marshall, Pigou, and Hicks. A worker, like anyone else, receives in wages the value of his net contribution to production. The concept of functional shares is rather foreign to this approach, but it is brought in through the notion of "elasticity of substitution."⁹ If the elasticity of substitution of capital for labor (the ease with which capital can take the place of labor) in a society with an increasing amount of capital is less than unity (and thus it is relatively difficult to replace labor with capital), then labor's share will tend to rise, and vice versa. The relative stability of labor's share, in

Wright (ed.), *The Impact of the Union* (New York: Harcourt, Brace, 1951), p. 148. Boulding considers his approach to constitute a revival of the classical theory, but he places so much emphasis on the "decisions of capitalists" that he seems to belong more properly in this second classification, although it should be noted that Ricardo did think distribution depended in part on human decisions, as in the case of the corn laws.

⁸ Paul H. Douglas, "Are There Laws of Production?" *American Economic Review* (March, 1948). Douglas relied for his information on G. W. G. Browne, "The Production Function in South African Manufacturing Industry," *South African Journal of Economics* (December, 1943).

⁹ See J. R. Hicks, *The Theory of Wages* (New York: St. Martin's, 1935), p. 117.

fact, would seem to indicate that the elasticity of substitution of capital for labor and labor for capital has been about unity, so that an increase in either one or both has not affected distributive shares.

While the neoclassicists were little concerned with class shares, they did consider the effect of group action, as well as of individual contributions, on rates of reward. In regard to trade unions, as well as other special-interest groups, they were convinced that, while restrictive practices could aid the special group—at least under some circumstances in the short run—such practices were at the cost of total product (as, for example, through reduced employment) or at the cost of some other related group, perhaps another group of workers, or both. They were not impressed with the ability of trade unions to raise labor's share and even less with the desirability of their trying to do so.¹⁰

The study by Douglas would indicate that actual developments in a number of countries (with a few exceptions, including South Africa as noted) are consistent with this marginal-productivity theory.¹¹ However, it has been pointed out in more recent times that because of short-run possibilities and of certain imperfections in product and labor markets, trade unions presumably could raise labor's share slightly or even moderately within a "range of indeterminateness,"¹² although efforts to do so continue to be viewed with substantial alarm in some quarters.¹³

Social-Group Theorists

A more optimistic view was introduced into popular thinking by Mill. He came to believe, after abandoning the "wage-fund" doctrine, that unions could raise wages to a new "common level" and even raise labor's share, that "the distribution of wealth is a matter of human institutions only." Carey and Walker, among early American economists, held that labor productivity could increase and in increasing would raise labor's share, and Walker believed that unions could raise wages and that higher wages would mean greater productivity—the doctrine of "efficiency."

¹⁰ See, for example, *ibid.*, chaps. 9, 10.

¹¹ "Taken in the large, there is an almost precise degree of agreement between the actual share received by labor and that which, according to the theory of marginal productivity, we would expect labor to obtain" Douglas, *op. cit.*

¹² For example, by exploiting employers in the short run through forcing them to neglect rewards to fixed costs or by eliminating monopsonistic possibilities in the labor market or by taking advantage of "kinked" demand curves in the product market. See, for example, William Fellner, *Competition Among the Few* (New York: Knopf, 1949), chaps. 10, 11, and L. Reed Tripp, "Labor's Share in the National Income," *Annals of the American Academy of Political and Social Science* (March, 1951).

¹³ See, for example, Charles E. Lindblom, *Unions and Capitalism* (New Haven, Conn.: Yale University Press, 1949).

wages" The Webbs and other "bargaining" theorists contended that unions, through effective "higgling" of the market, could advantage labor. In more recent times, Golden and Ruttenberg have argued that organized labor should and could get for its members "a larger share of the nation's income."¹⁴

The essence of this approach is that social relations do affect distribution and that individual and group actions, including bargaining, can be effective, but there are no "natural laws" or "class shares," nor is there any monopoly of influence in the hands of the capitalists. The rates of exchange among groups and individuals are not set by any inexorable compulsions, but are subject, within limits, to control by man, leeway exists for effective individual and group bargaining. Out of this philosophy has grown much of the *raison d'être* of non-class-conscious trade unions, and also of employers' associations, farmers' organizations, and other special-interest bargaining groups. These theorists have asserted the effectiveness of group action within certain socially set limits.

These, then, are the main answers given by the theorists over the past century and a half. Which of them is more nearly correct? Now it might be held that this is a question of little importance for, it is said,¹⁵ individuals are concerned, not with the distribution of the national income among economic and social classes, but with the personal distribution of income. This is no doubt true, particularly in the United States, but distribution by aggregate functional shares does interest economists and policy makers, nevertheless. It was with this problem that classical economics first started, and it is one which has come to the fore again in recent times. It is part of the deathless issue of the comparative influence of eternal "laws" and of men on economic events. An examination of the behavior of labor's share may also illuminate the policies of the trade union movement and indicate which of these policies, if any, may raise, or perhaps reduce, wages as a share of national income and under what circumstances. An investigation of changes in labor's share can also help indicate how productivity gains are shared,¹⁶ how employers respond to increases in money wages under different environmental conditions, how wage-price-profit relationships are structured, and how governmental fiscal policies affect broad segments of the economy. Finally, aggregative

¹⁴ Clinton S. Golden and Harold J. Ruttenberg, *The Dynamics of Industrial Democracy* (New York: Harper, 1942), p. 151. For a much more conservative view of the limits to union action in affecting labor's share see Sidney C. Suffrin, *Union Wages and Labor's Earnings* (Syracuse, N.Y.: Syracuse University Press, 1950).

¹⁵ See comments of Kenneth E. Boulding, Milton Friedman, and Paul A. Samuelson in Wright, *op. cit.*, pp. 352-355.

¹⁶ It can also indicate the relationship between real wages and productivity. A constant share for labor implies a constant relationship between real wages and productivity, and vice versa.

distribution has implications for personal distribution, an increased share for wages and a decreased share for interest, for example, may result in a more equitable distribution among individuals

And so we ask the question Can trade unionism affect distributive shares? Now, the term "trade unionism," instead of "collective bargaining," is used deliberately Unions can and do affect actions of both employers and governments, and some of both kinds of actions have potential or actual consequences for distributive shares To explore the impact of unionism in only the economic sphere and not also in the political sphere is to tell but half the tale It should be noted, also, that attention here is directed to the percentage share of labor in national income, not its absolute share, although a few comments about the latter will be made occasionally since relative and absolute shares can and sometimes do move in opposite directions When the term "labor's share" is used, it means, unless otherwise specified, labor's relative share

It was noted above that the confusion of tongues may stem, in part from the apparent simplicity of the question as customarily phrased Can trade unionism increase labor's share or can it not? An affirmative or negative answer seems required A more fruitful phrasing of the question might be Under what circumstances, if any, can trade unionism affect distributive shares and in what fashion? Trade unionism is more than one thing and it operates in more than a single environment It is the thesis of this chapter that a certain kind of trade unionism under certain conditions will have no effect, that a certain kind of trade unionism under certain conditions will increase labor's share, and that a certain kind of trade unionism under certain conditions will reduce labor's share

We shall discuss, first, several kinds of trade unionism, second, the results they are likely to have in the environment or environments appropriate to each; and third, the American and British and certain other experiences in relationship to this analysis.

SIX TYPES OF UNION POLICY

Unionism may be categorized in many ways and for many purposes For our purposes it is useful to distinguish among types of unionism in accordance with their broad economic purposes and their methods We distinguish here among six types of unionism, or union policy, according to their attempted depth of penetration into economic processes and to the principal approach they have chosen to take to their assigned tasks The various degrees of penetration include efforts to affect money wages, real wages, money and real wages after governmental redistribution of income, distributive shares, and the over-all operation of the industry or the economy The approaches can be primarily economic, through col-

lective bargaining, or political, through party action. By considering both depth of penetration and method of approach, the six types of policy are identified.

Before presenting these six types, certain qualifications are in order. First, we are primarily concerned with unionism in democratic, capitalistic nations in an advanced state of industrial development, where the economic order is generally accepted by the workers, not with the "agent-of-the-state" unionism of a Communist or Fascist nation, nor with the quasi-revolutionary unionism of an unstable system, as in France or Italy, nor with the volatile unionism of a newly developing economic order, although reference will be made to some of these situations.

Second, our six types and their subtypes are something of caricatures. They exaggerate certain characteristics of unionism rather than draw a full picture, but this is inevitable in the presentation of analytical types. Particularly, several of the types tend to overlap in actuality, and some of them may never occur at all in pure form. Moreover, in these caricatures, we largely ignore the internal variations within each type.

Third, the six types do not necessarily occur historically in the same order set forth here, although the first types listed do tend to come earlier in the historical process than do the others. The latter types generally result from more sophistication about economic processes and from the accumulation of greater power, and usually also from more ideology and more ruthlessness.

Fourth, the different types and subtypes are of quite unequal importance. Some of them may occur so infrequently in fact as to be considered freaks.

Fifth, we shall not concern ourselves very much with the origins of these different types, though each has its own environmental womb, but rather accept each as given to us full-grown.

It should not be taken as implied in any way, however, that a union or a union movement is offered these six alternative economic policies from which to pick and choose, rationally or irrationally, according to its own free will. In large measure, each union or union movement has its economic policy virtually given to it by the changing nature of the society in which it develops and lives. And once the policy is given, certain possibilities almost automatically follow from it. The union in this area of activity is a mechanism, often an important one, that links largely uncontrolled cause with well-nigh inevitable effect. Understanding of the situation comes more readily than its control, consequently, realization that a policy lacks effectiveness does not assure its abandonment. Free will, in the sense of self-determined actions unrestricted by imposed social necessities, must usually find its scope of expression within quite closely circumscribed confines, within the generally narrow limits set by the

situation. Consequently, the righteous assessment of personal blame and personal praise for the effectiveness or ineffectiveness of each policy rests on but a slight foundation.

The six types of unionism, or perhaps better, the six economic programs of unionism, follow:

1. *Pure and simple unionism* Here the emphasis is on collective bargaining to raise the money wage without benefit of theories or formulas.

2. *Wage-policy unionism* This type of unionism takes several forms, depending on the dominant policy being followed. One illustration is what might be called the "improvement unionism" of the United Automobile Workers, where the union bargains with the employer for a real wage (the escalator clause) and a share of increased productivity (the improvement clause). It is unionism which is still pure but no longer so simple. "Pure and simple unionism" will, of course, also react to changes in the price level and in productivity but in a more informal manner. As we shall see, there are several alternative policies, in addition to "improvement unionism," which have been adopted.

3. *Managerial unionism* Unions adopting this approach try to affect distributive shares at the plant or industry level through such devices as Bronfenbrenner has set forth¹⁷—the "all-or-none" contract, profit-sharing schemes, union-management joint control of the industry with the union participating in price-setting, control of entry of firms, and so forth. This might be called "not so pure and not so simple unionism." On a larger scale this is, in fact, the Israeli economy.

4. *New Deal unionism* The essence of this type is a political alliance with other forces also concerned with securing a full-employment economy through governmental action, while bargaining for a higher money wage under the improved economic conditions.

5. *Labor-party unionism* Here the effort is to control distributive shares, but through influencing governmental action instead of through collective bargaining, by means of progressive taxation and various forms of subsidies.

6. *Direct-controls unionism* Direct governmental controls on a temporary or permanent basis are sought, particularly over prices. In Norway, the unions and the Social Democratic party have sought and secured a permanent price-control law,¹⁸ and unions in the United States and Great Britain have been more favorably disposed to direct controls, under certain conditions, than have been most other elements in the population. The Swedish trade union federation seeks permanent price control on

¹⁷ M. Bronfenbrenner, "Wages in Excess of Marginal Revenue Product," *Southern Economic Journal* (January, 1950).

¹⁸ See Walter Galenson, *Labor in Norway* (Cambridge, Mass.: Harvard University Press, 1949).

"monopoly products" At a more sophisticated level, there may be a national bargain at the parliamentary level over "class shares," involving wages, prices, taxes, government benefits, and, at the extreme, a fully planned economy.

PURSUIT AND ESCAPE

Each of these types of unionism is engaged in a grand pursuit—a pursuit mainly of the employer. And the employer is always trying, with more or less success, to escape. Now I do not wish to conjure up a picture of poor Eliza being chased across the ice by bloodhounds. Our Eliza is by no means always poor, nor do the bloodhounds always pursue very aggressively (they are often quite gentle creatures). They may even agree to stay a certain distance behind her, or to care for and protect her if she will be nice to them, or they may help arrange for better ice so that both Eliza and they can run faster. However, they may also try to get somebody else to hold Eliza one way or another so that they can catch up with her, which does not, offhand, sound very fair, though it may be quite effective. And, in our little drama Eliza does not always get across the river in time, although she usually does remarkably well and at times even turns around and chases the bloodhounds back again. Beyond that, the bloodhounds sometimes catch somebody else while chasing Eliza. They may even, inadvertently, catch themselves. In the extreme case, they may liquidate Eliza and start chasing each other, and this can turn out to be the bloodiest drama of all.

It is to this pursuit of employers by unionism that we now turn our attention. The end conclusion will be that only through quite deep penetration into economic decision making, either directly or indirectly through government, can unionism increase labor's share more than temporarily, that unionism must approach the problem of distributive shares directly and consciously if it is to attain the goal of a higher relative share for labor. In the discussion which follows we shall relate type of program to degree of change in labor's share. This assumes, of course, that unionism has the power to make each program effective. We shall be taking power for granted and concentrating on the program and its likely results, but it should be understood throughout that the results will depend on power as well as on program.

The "likely results" we will be examining are the effects on labor's share and not either the possible economic consequences of a change in labor's share or the internal or external costs to unions and their members incurred in effecting the change. Our focus thus will be on the impact and incidence of unionism, i.e., with the initial effect of a certain program on the share of labor and with the effect on other shares if labor's share

is raised or lowered We shall not consider, except occasionally, the effects of such initial shifts in shares on employment, the inducement to invest, the propensity to consume, productivity, and the like, although the impact of the initial shifts on each of these economic variables may well lead to a secondary shift in shares Nor shall we consider the costs to unions and their members of certain of the programs, costs such as increased internal factionalism or the introduction of external control.

Pure and Simple Unionism

It is relatively easy for employers not to be caught by the economic program of "pure and simple unionism" To begin with, union wages may not be raised above the rates which otherwise would have prevailed If they are, there are two important links between wages and profits, and employers may elude pursuit at either or both of these two points First, they may raise prices (and this is particularly easy to do if the union covers the whole industry), and, second, they may introduce laborsaving devices¹⁹ or otherwise raise productivity Thus one would expect this kind of program to result in a higher share for labor only when unionism is particularly aggressive, as perhaps in its organizing period, when the market is "hard," to borrow the phrase of Phelps-Brown and Hart,²⁰ i.e., when it is pressing down on prices, and when laborsaving innovations or other improvements in the use of labor are not available Presumably such gains in labor's share at the expense of profits would be only temporary, although Phelps-Brown and Hart have suggested that employers, once having had their margins cut, may be content to leave them at lower levels for substantial periods of time and, perhaps, also the reverse.

Pure and simple unionism may, under some circumstances, actually reduce labor's share and raise the share of profits, recognition of this possibility, however, does not imply that it is a normal occurrence With the introduction by unionism of what the Webbs called the "standard rate," the natural spread of rates over a wide range from firm to firm²¹

¹⁹ Slichter believes, however, that collective bargaining can cause the share of property to drop and the share of labor to rise The elasticity of substitution of capital for labor is less than unity, he argues, and thus by forcing up wages, with capital not being easily substituted for labor, unions can raise labor's share The validity of his conclusion depends on whether the elasticity of substitution of capital for labor is less than unity and whether unions can and do force wages above the levels which would exist in their absence One can only speculate, however, about the relative elasticity of substitution of capital for labor See Sumner H Slichter, *The Economics of Collective Bargaining* (Berkeley, Calif University of California Press, 1950), pp 36-38

²⁰ E H. Phelps-Brown and P E Hart, "The Share of Wages in National Income," *Economic Journal* (June, 1952)

²¹ See, for example, Richard A Lester, "Results and Some Implications of Some Recent Wage Studies," in Richard A Lester and Joseph Shister (eds) *Insights into*

is greatly reduced, or even eliminated. Within this range, in the absence of unionism, firms are distributed in the wage rates they offer largely in accordance with their ability to pay. The more efficient firms, in effect, share their larger profits informally with their employees.²² "Good" behavior by an employer consists of paying in excess of the "going rate." Under the "standard-rate" policy, however, it consists of paying the union rate. Given any substantial degree of union sensitivity to the volume of employment, the "standard rate" will be set well below the capacity to pay of the more efficient firms. Some firms may be forced out of business, although this seldom occurs, and others may have their profit margins reduced, but for others the "standard rate" preserves for the firm itself that portion of profits it otherwise would have shared with labor. Whether the profit share will be larger more than temporarily, if at all, will depend, of course, on many things, including what happens in regard to the entry of new firms, prices, the volume of employment, and the incentive for efficiency of the supramarginal firms.

This tendency to protect profits and minimize the wage bill is seen in an exaggerated form in Germany, where wages are set on an industry-wide basis in accordance with the dictates of a "dictatorship-of-the-last-bench" approach, that is, where wages are set for a whole industry at a sufficiently low level so that not even the most marginal worker becomes unemployed. So long as the discipline of the industry holds firm, this can give rise to very high profits for the more efficient firms. In Germany, this discipline has broken down in two ways first, by the provision of more complete paternalistic benefits by the supramarginal firms—a practice of long standing in Germany, and, second, by breaking the solid employer front and bidding up wages above contract levels. The latter has happened in recent years, particularly during the great boom in the Ruhr metalworking industries. The greater the obsession with the fear of unemployment, which has been unusually intense in Germany, and the greater the respect for adherence to laws and rules, again quite pronounced in Germany, the greater the tendency for the standard rate to be set at low levels and widely followed.

But this phenomenon is not confined to Germany. In the United States the United Automobile Workers, for example, cannot have too wide a

Labor Issues (New York: Macmillan, 1948), also, Richard A. Lester, "Wage Diversity and Its Theoretical Implications," *Review of Economics and Statistics* (August, 1946)

²² Note in this connection Douglas' observation "Quasi-monopolies and oligopolies may have shared with their workers the excess gains they have made at the expense of consumers" (In Douglas, *op cit*) See also comments on the behavior of the "good" employer in Joseph Garbarino, "A Theory of Interindustry Wage Structure Variation," *Quarterly Journal of Economics* (May, 1950)

dispersion among rates paid by passenger-car producers, thus the rates for General Motors are in part set with an eye on the survival of certain smaller companies. This evidences not only a concern for unemployment if the smaller companies go out of business but also for the structure of the industry, the standard or nearly standard rate if raised to higher and higher levels could end in only one, presumably the most efficient, producer surviving. So the standard rate, to the extent that it is set with an eye on unemployment and the structure of the industry and to the extent that it is followed, can raise the profit share of an industry.

There are at least two ways out of this predicament. First, the union can fail to set a standard rate at all or can set it for only restricted segments of its membership at a time (as the teamsters' union sets separate rates for drivers of ice, coal, oil, and beer trucks in accordance with the ability to pay of each industry), thus acting like a discriminating monopolist with a separate wage policy geared to the capacity of each separate market. Second, the employers can escape from the standard rate by paying above-contract rates (which is often frowned upon) or, more commonly, by providing more favorable fringe benefits or better conditions—an increasingly available escape hatch now that substantial wage supplements are more common. The customary history seems to be that the more efficient employees, originally, share their extra profits with their employees, since this is one of the more pleasant and less embarrassing ways of getting rid of them, then the union introduces the standard rate, and, finally, either the union finds some way to allow the more efficient firms to spend more money on their employees or the firms find a way of their own. It is very difficult to keep the employers indefinitely from giving away their profits in part to their employees, in one way or another.

A further aspect of "pure and simple unionism," and one of more than theoretical significance only, is the policy of the "rigid money wage." Keynes believed²³ that money wages were quite rigid throughout the business cycle, partly because of union policy, except in periods approaching full employment or under conditions of full employment. If money wages were so rigid, it would mean that labor's share would rise in a depression because aggregate wages would fall in proportion to the decline in employment while profits would fall more than proportionately, both because of some decline in prices and because of the fixity of overhead costs. Labor's share would fall in times of prosperity because, with larger volume and perhaps higher prices, profits would rise and not be recaptured for the workers through wage increases. Actually money wages are not so rigid in a depression as Keynes suggested, and certainly

²³ See J. M. Keynes, *The General Theory of Employment, Interest and Money* (New York: Harcourt, Brace, 1936), and also "Relative Movements of Real Wages and Output," *op. cit.*

not in a period of recovery,²⁴ but pure and simple unionism does tend to lead to rather rigid money wages in depression,²⁵ thus holding up labor's share during such a period, and to some lag of wages behind prices in times of prosperity—through delays in negotiations among other reasons —thus holding down labor's share during such a period

Wage-policy Unionism

Pure and simple unionism is largely pragmatic and bereft of doctrines, except for the concepts of the standard rate and of wage rigidity in depressions. Aside from these policies, which relate to quite fundamental beliefs of their members, pure and simple unions approach wage setting without much more of an orientation than the idea of getting as much as they reasonably can under the circumstances. Under certain conditions, usually when they have an ideological framework for their actions or when they are a specially active force in their national economy or both, unions tend to move away from their pragmatic predilection toward reliance on an explicit policy or even a formula—the policy serves both to guide action and to rally support over a wide area. Such policy generally takes one of three forms (1) it may be oriented within the working force to some concept of proper relationships—the "just wage structure," (2) it may be concerned with external relationships toward other elements in the population—the "fair share" of national income, or (3) it may be directed toward the effective operation of the national economy—the "responsible general wage level."

The just-wage-structure view is illustrated by the policies of the unions in Sweden,²⁶ Holland, and Israel,²⁷ for example, where they have quite firm ideas about the proper relationship of wages to each other, but perhaps best by the Australian approach. There the basic wage is tied to certain views about a minimum standard of life and the cost of living, and wages above the basic wage are all related to each other in quite a fixed fashion. The system is not an entirely rigid one, of course, and there is much more to it than this,²⁸ but ethical views about the right relation of one wage to another are a controlling factor in wage setting. Woottton has recently suggested that "justice," which means mainly the equalization of wages and salaries, should be the central purpose of the wage-setting

²⁴ See John T. Dunlop, "The Movement of Real and Money Wage Rates," *Economic Journal* (September, 1938)

²⁵ See Joseph Shuster, "The Theory of Union Wage Rigidity," *Quarterly Journal of Economics* (August, 1943)

²⁶ See, for example, Lloyd G. Reynolds and Cynthia H. Taft, *The Evolution of Wage Structure* (New Haven: Yale University Press, 1956), chap. 9

²⁷ See, for example, *The London Economist* (Mar. 10, 1956)

²⁸ For a recent discussion of the wage-setting process in Australia, see Mark Perlman, *Judges in Industry* (Melbourne: Melbourne University Press, 1954)

process.²⁹ Such an approach to wage policy has some repercussions on labor's share. First, the whole structure will tend to move slowly and to resist the impact of changing market forces, and, second, the wages for the more skilled may not be as high as the market would bear. Consequently labor's share will tend to rise more than otherwise in a depression, to fall more than otherwise in prosperity, and in the long run, perhaps, to be slightly lower than would normally be the case.

The "fair-share" policy is more outward-looking toward other economic groups in the economy and seeks to assure at least parity of treatment with them. "Improvement unionism" in the United States illustrates this philosophy. It seeks to tie wages closely to the cost of living and to the increase in physical productivity.³⁰ Wages tend to follow the cost of living and productivity in any event, but this policy, by calling for quick and automatic adjustments, reduces the lag. Thus labor's share would tend to fall slightly less than it otherwise would on the upswing and to rise slightly less (assuming the escalator clause is allowed to work downward as well as upward) on the downswing. Assuming, however, a full-employment economy without inflation, the net results, as compared with what otherwise might happen, would probably be negligible.

The policy probably, on balance, slightly favors chronic inflation by reducing lags, although Ross and Reder have suggested that it will make the swings in both directions more violent.³¹ It certainly favors inflation if unions obtain provisions calling for overcompensation for cost-of-living rises and increases in physical productivity. If such a policy of overcompensation becomes generalized over the whole economy, as it did in Finland,³² and is effectively enforced, the share of labor will have to rise at the expense of some other segment.

The policy of improvement unionism may also result in a heightened public consciousness of inflation and thus in greater public measures to control it or to reduce the customary effects on the distribution of real income obtained through the introduction of the universal escalator.

²⁹ Barbara Wootton, *The Social Foundations of Wage Policy* (New York: Norton, 1955).

³⁰ Escalator clauses adjusting wages to the cost of living alone are, of course, very common, but they give a much more partial and temporary version of "fair shares."

³¹ Arthur M. Ross, "The General Motors Agreement of 1948," and M. W. Reder, "The Significance of the 1948 General Motors Agreement," *Review of Economics and Statistics* (February, 1949).

³² The arrangement grew out of negotiations between the trade union federation and the federation of employers but was effectuated by government. It lasted from 1947 to 1951. See *Notes on Labor Abroad*, (U.S. Bureau of Labor Statistics, April, 1948, and March, 1951). Labor's share in Finland rose from 59.6 to 61.2 per cent from 1947 to 1948. See *National Income Statistics, 1938-1948*, (New York: United Nations, 1950), p. 217.

More generally, however, this is a policy designed not so much to catch employers as to prevent them from running farther away Individual employers, of course, can run away farther by having their prices advance faster than prices generally or by raising the productivity of their workers more than the general rise in productivity, but employers as a whole cannot³³

The "fair-share" policy may go beyond an effort to keep up with the general advance of the economy and become a rather rigid program for distributing "class shares." The postwar agreements in Austria are a good example of this attitude.³⁴ Since 1947, agreements between representatives of labor, management, agriculture, and government have determined wage and price levels, tax rates, subsidies, rationing provisions, and pension and family-allowance benefits. Each group has sought to gain at the expense of the others, and in totality they have tried to share out more than was available. Somewhat the same course has been run in France, although the arrangements have been less formalized.³⁵ Low-income workers and salaried employees, peasants, and tradesmen have, in particular, sought to maintain or raise their "class share," a gain by one has resulted in counteraction by others. The total result, as in Austria, has been more inflation and less economic progress than might otherwise have occurred. In Finland, the general strike in the winter of 1956 was caused by a rise in the price of milk which resulted in a gain for the farmers and a loss to the workers, and the latter were determined to make good their loss. The Brannan Plan for fixing farm incomes in the United States is based on the assumption that there is a fair share of national income for the farmers and that they should be guaranteed its receipt regardless of what else may be happening in the economy. The class-share approach may be said to be quite sophisticated, but it certainly contributes to the attitude of class warfare out of which it partially originates. To the extent that it is effective, it tends to assign relatively fixed shares to labor³⁶ and the other groups and to protect them from cyclical and secular changes.

³³ Related to improvement unionism in intent are those contracts which tie wages, in part, to the price of the product (like copper, wool, lead). The purpose is to share prosperity (and, to a lesser extent, poverty) with the employer. The area of attention is the industry instead of the economy.

³⁴ Murray Edelman, *National Economic Planning by Collective Bargaining* (Urbana, Ill.: University of Illinois Press, 1954).

³⁵ See, for example, Jean Marchal, "The Requirements of a Wages Theory," a paper delivered before the 1954 conference of the International Economic Association and to be published in a forthcoming report.

³⁶ In France, labor's share remained fixed at 46 per cent from 1947 to 1950, but this can only be considered indicative, not conclusive. For statistics, see *National Accounts Studies France*, (Paris: United Nations Economic Commission for Europe, 1952.)

The "responsible-general-wage-level" policy is normally best expressed when the union movement shares responsibility for running the country, as has been the case in Sweden, Great Britain, and Holland, among other nations. The policy is usually geared to the maintenance of a reasonably stable price level under conditions of full employment, and perhaps also to foreign-trade possibilities (as in the case of Holland) and to the development of a high rate of investment (as in Germany). Beveridge has been a great exponent of such a policy,³⁷ and the Swedish trade union movement has given particular attention to its development.³⁸ To the extent that such a policy is effective, and the "wage slide" above contract rates in Sweden and Germany demonstrates its limits, the general level of wages is somewhat reduced in a period of prosperity to the advantage not only of profits but also of rent and interest, because of the lessened tendency toward inflation, thus labor's share is below what it might otherwise be.³⁹

None of these three "wage-policy" approaches is aimed specifically at catching the employer. The first, the just wage, is aimed at enabling workers to keep up with each other, the second, fair shares, at enabling them to keep up with everybody else, including the employer, and the third, the responsible general wage level, at maintaining the well-being of the total economy. The first and third may generally reduce labor's share a bit from what it otherwise might be, the second holds out promise of at least maintaining it and possibly increasing it, but the success of the latter depends very much on the comparative economic and political strength of the opposing interests.

Managerial Unionism

The program of managerial unionism is designed to control the distribution of income within the plant or, more usually, within the industry. The specific method may be an all-or-none bargain which obligates the employer to a certain specified wage bill (a given number of employees at a set wage rate) if he is to operate at all. This certainly can cut into profits, as compared with the customary rule of flexibility in the number

³⁷ William H. Beveridge, *Full Employment in a Free Society* (New York: Norton, 1945).

³⁸ See *Trade Unions and Full Employment* (Stockholm: Swedish Confederation of Trade Unions, 1953).

³⁹ Labor-share statistics for Holland and Sweden may be somewhat indicative. In Holland the share went down steadily from 55.0 per cent in 1946 to 48.3 per cent in 1949 [See *National Accounts Studies: Netherlands* (Paris: United Nations Economic Commission for Europe, 1950)] and in Sweden from 64.9 per cent in 1947 to 60.7 per cent in 1951 [See *National Accounts Studies: Sweden* (Paris: United Nations Economic Commission for Europe, 1953)].

of employees The employer, however, may be able to escape the impact of the all-or-none bargain by raising prices or by increasing the output of his labor force

A second method is direct profit sharing Here the employer can regain the original amount of profit he obtained only by increasing the total amount, since some of the profit must be shared with his employees A third device is partial or complete participation in the direction of the industry—the determination of prices and output and the distribution of the gross returns There are even instances where the employers are given a general ceiling on their incomes and, if this ceiling is pierced, the compensation of employees is raised in one fashion or another. The incentive for efficiency, under such arrangements, lies more with the employees than with the employers

This kind of policy is very limited in its actual application, but there is no doubt that under it, assuming the union has enough power, shares can be affected, labor can receive more than its marginal revenue product.

New Deal Unionism

Under a program emphasizing the achievement of full employment through governmental policy, unions can chase employers faster and win higher money wages than in periods marked by less than full employment, but employers can run still faster The profit share rises and, even though the shares for rent and interest are reduced, labor's relative share of national income falls In a depression, exactly the reverse happens and labor's share rises Within this share, the salary share rises more than the wage share but, contrary to Kalecki,⁴⁰ the wage share also increases.

Thus, over a period of time, a permanent full-employment economy will show a lower average share for labor than one in which prosperity and depression alternate The permanent full-employment economy, however, may show a higher share for labor than the prosperity period of a less stable economy, particularly since continued full employment and its associated conditions bring a shift away from debt and a relative reduction in interest charges, and also a shift away from rent. Also, continued full employment may reduce profit margins, competition will even them out over time and generally reduce them, and employers may be satisfied with lower margins if prosperity is considered a permanent condition. An economy with continuing full employment without inflation may also show a higher share for labor than one rapidly approaching full employment, since wages will not be lagging behind prices as they tend to do in an expanding economy. But, if permanent full employment is accompanied by constant inflation, lags will tend to hold the

⁴⁰See John T Dunlop, *Wage Determination under Trade Unions*, (New York-Kelley, 1950), pp 174ff

wage share down and the profit share up. Consequently, continuing full employment without inflation will result in a higher share for labor than will occur in an occasional period of full employment or one where permanent full employment and constant inflation go hand in hand. While we are inclined to agree with Morton⁴¹ that union wage pressures are not usually the basic cause of inflation, still the governmental policies associated with New Deal unionism may cause inflation, and inflation does cut labor's relative share.

Full employment yields the unions a more favorable environment in which to bargain for money wages but one in which, while they are given an opportunity to chase, they cannot catch the employers. They must be content with catching, in terms of shares, the recipients of rent and of interest, and perhaps also some of their own members. In fact, the chief beneficiary of New Deal unionism in terms of shares (unless one separates out the share of the previously unemployed which, of course, goes up enormously) is entrepreneurial income. With their policies of the standard rate and full employment, unions of the American type—which in recent years have typically combined pure and simple unionism at the level of the plant and industry with New Deal unionism at the level of the national economy—might be viewed as the protectors of profits and the defenders of the faith.

The relative share, of course, is less important than the real, absolute share and the latter rises for labor with the movement from less-than-full employment to full employment, although it may fall slightly with inflation.

Labor Party Unionism

The policy of "labor-party" unionism relies on taxation and on subvention to affect, not the income received in the primary distribution, but rather the income retained after secondary distribution has taken place.⁴² Through progressive taxation and subsidies the real income available to labor can be raised as compared with that of other segments of the population who were originally more highly rewarded. Here at last the employer can really be caught, although perhaps not to the extent that might first appear. Goods and services are taken out of the market place and given to wage and salary earners with the cost financed by taxes bearing heavily on other elements in the population.

⁴¹ W. A. Morton, "Trade Unionism, Full Employment and Inflation," *American Economic Review* (March, 1950).

⁴² Efforts to control secondary distribution may, of course, also change the pattern of primary distribution. See Geoffrey H. Moore, "Secular Changes in the Distribution of Income," *American Economic Review* (May, 1952).

Direct-controls Unionism

The essence of this policy is direct price control by government At least in the short run, profit margins can be held steady in an inflationary period or even squeezed, if enforcement is adequate, and the share of labor consequently maintained or raised. By holding down rents, the share of labor can be further advantaged. Under this policy, with the government holding on to the employer, unionism can catch him and take some of his profits, although there may be some cost in volume of employment or amount of total output

Direct controls may be spread to include rationing, subsidies, etc., which brings this approach very much in line with the class-share strategy discussed above, except that it is developed largely through government rather than collective bargaining, but at this level of penetration the distinction between them loses meaning Beyond this lies the fully planned economy which has control over investment, foreign trade, manpower allocation, and the like The greater the control, obviously, the greater the ability to affect distributive shares, as we shall see below in the case of Russia, and the more important becomes the intent of the government in affecting shares Generally, a fully planned economy will be related either to a large-scale military or industrialization effort with some inevitable effect on the share kept by labor, such an economy has usually been related either to an external or internal war.

THE HISTORICAL EXPERIENCE

The historical experience—particularly the American and British experience, for which the best statistics exist—is consistent with the probable impacts of these several different union approaches as outlined above It should be noted in advance of reviewing this experience that it is inherently difficult to separate out the impact of unionism on labor's share since so much else is usually happening, aside from the application of union policy, which affects distributive shares Also, the basic statistical data are far from satisfactory and there are many inconsistencies and imperfections in the definitions relating to distributive shares⁴⁸ We shall review, first, the American statistics, second, the British, and third, those for certain other countries, including Russia, we shall then make some general comments about the apparent effectiveness of the several union approaches

⁴⁸ For an excellent discussion of the importance of the definitions used see Dunlop, *op cit*, chap 8.

United States

The experience in the United States may be summarized as follows:

1. Employee compensation as a share of income originating within the business sector of the economy, after allowing for interindustry shifts in weights, has been quite stable over substantial periods of time. It was virtually unchanged from 1929 to the early 1950's (see Table 1). When

TABLE 1 UNITED STATES COMPENSATION OF EMPLOYEES
AS PER CENT OF INCOME 1929-1954

Year (1)	Per Cent of Total Income (2)	Per Cent of Total Private Income (3)	Per Cent of Total Private Income Adjusted for Interindustry Shifts* (4)
1929	58 2	56 1	56 1
1930	61 9	59 6	59 0
1931	66 6	63 9	64 7
1932	73 0	70 0	74 1
1933	73 6	70 2	73 8
1934	70 0	66 1	65 2
1935	65 4	61 3	61 8
1936	66 1	61 6	60 0
1937	65 1	61 3	60 0
1938	66 6	62 2	61 7
1939	66 1	61 9	60 4
1940	63 8	59 8	57 5
1941	61 9	57 8	54 9
1942	61 9	57 0	53 5
1943	64 3	57 8	53 4
1944	66 4	59 0	54 7
1945	68 0	60 0	56 9
1946	65 5	60 8	59 2
1947	65 3	62 0	59 3
1948	63 6	60 4	57 8
1949	65 2	61 6	58 5
1950	64 3	60 8	57 4
1951	65 1	61 2	57 7
1952	67 2	63 1	59 0
1953	68 5	64 8	60 1
1954	69 4	65 7	61 5

* Weighted on the basis of each industry's contribution to total private income in 1929.
 SOURCE Data for 1929 to 1953 from *Survey of Current Business, National Income* (1954) Tables 13 and 14, data for 1954 from *Survey of Current Business* (July, 1955)

viewed from other less meaningful vantage points, however, it has gone up Employee compensation has risen significantly as a per cent of total income (column 2), but this is true, in part, because of the great shift of employees into government, where employee compensation is calculated as 100 per cent of income in that sector. It has also risen as a per cent of total private income (column 3), leaving out government, but this is the case, in part, because industries (like construction) with a high wage and salary component in the income that they add to the economy have become relatively more important in our national productive effort. The really important question is whether employee compensation has increased percentagewise after allowances are made for such shifts in the industry mix as the increased importance of government and construction. When the "industry mix" is held constant (column 4), there is little apparent increase since 1929 in labor's share, and it is since 1929 that the great growth in trade unionism has occurred in the United States.

What happened prior to 1929? This is difficult to answer because the statistics become progressively less adequate as we go farther back, but to the extent that any generalization is meaningful, it appears that over the past century labor's share has risen primarily as employed persons have become a more important component in our population. In other words, employees are not comparatively better off as individuals, there are, however, many more of them. There has been no substantial shift of income to labor, as compared with the other income recipient groups put together, employees are better off to the extent that all income recipients are better off. In a review covering the period since 1870, Kuznets⁴⁴ makes the following observation:

We may conclude therefore that, by and large, the decline in the share of entrepreneurs in service income, and the rise in the share of employees . paralleled the movements in the share of numbers in the total labor force

Budd comes to much the same conclusion. No secular increase occurred from 1850 to 1900, although labor's share went up somewhat after the abolition of slavery and down somewhat with the introduction of mass immigration, but there has been a slow secular increase since 1900 in labor's share within the total economy, although labor's share in manufacturing has apparently remained constant or even fallen a bit. This increase has been, at least in more recent times, at the expense of interest and rent shares, and not at the expense of corporation profits or the in-

⁴⁴ Simon Kuznets, "Long-term Changes in the National Income of the United States of America since 1870," *Income and Wealth*, series II, (London Bowes and Bowes, 1952), p. 140. "Service income" is nonproperty income.

come of unincorporated business, including the self-employed.⁴⁵ The reduction in the shares of interest and rent can be ascribed to several factors, including secular inflation.

2. The share of labor was higher in times of depression (1931 to 1934) and recession (1938) than in more prosperous periods.⁴⁶ The shares of interest and rent rise the most under depression conditions because they are made up of relatively fixed payments. The shares of corporations and unincorporated businesses, including farms, fall the most, and then fall more than offsets the rise for interest and rent. This set of adjustments leaves a larger share for labor, although in absolute terms, of course, labor is worse off. It should also be noted that the inclusion of salaried employees in "labor" gives labor a component with relatively stable employment; also, both salaries and wages tend to be rather "sticky" when the cycle is moving downward. As an extreme illustration of the effect of a depression on labor's share, there is the situation that arose in mining during the Great Depression. At that time labor's share was more than 100 per cent of the income of that sector of the economy because of the large losses sustained by the mines, the amount being paid out in wages was greater than the total income of the industry.

3. During the World War II inflation, labor's share sank a bit at first but later rose, particularly in the one area where price control was most effective—nonfarm corporations.⁴⁷ In World War I, also, labor's share went down at first and then rose again toward the end.⁴⁸ The wartime pattern seems to be for prices and profits to make the greatest gains at first, and then for labor's share to recover as the government imposes more control over prices and as unions (and labor-market stringencies) put greater pressure on wages.

4. Labor's share rose after World War II, from 1945 to 1947, when corporation profits were depressed by reconversion and when unions

⁴⁵ Edward C. Budd, "Labor's Share of National Income," unpublished dissertation, University of California, Berkeley, Calif. (1954), p. 295. For a discussion of this same period, see also D. Gale Johnson, "The Functional Distribution of Income in the United States, 1850-1952," *Review of Economics and Statistics* (May, 1954).

⁴⁶ It was also higher again in 1954, a year marked by a recession that started in 1953 and that particularly affected farm income. It may be, however, that labor's share in the United States is moving to a somewhat higher plateau because of the continued effect of full employment in reducing the shares of rent and interest, but not of profits, so that at relatively full employment labor's share will be higher than it was during intermittent periods of full employment in the past, such as 1929. Twenty-five years' experience—the length of time for which reasonably reliable statistics are available—is after all, hardly a sufficient basis for firm and final conclusions.

⁴⁷ See Edward F. Denison, "Distribution of National Income," *Survey of Current Business* (June, 1952).

⁴⁸ See Budd, *op. cit.*, p. 295.

were unusually aggressive This repeats the experience of World War I⁴⁹ A reconversion period tends to be marked by a depression, although perhaps a special kind of depression, and so it would be expected that labor's share would rise, but it is different from the usual depression in that, as a result of wartime stimulation, unions are specially aggressive and thus particularly able to put pressure on employers from which they cannot readily escape

5 After adjustments for allocable taxes on income, compensation to employees rose more, comparatively, from 1929 to 1950, than did other shares The great loser, after taxes, was the share going to corporate profits⁵⁰ The redistribution, however, has been comparatively modest in amount,⁵¹ and not so great as in Great Britain, chiefly because in the United States the governmental taxation and expenditure programs are proportionately considerably smaller than in Great Britain⁵²

6 Labor's share of income, industry by industry, has generally fared no more favorably in unionized industries than in nonunion industries. Contrary conclusions have been reached, but they have been based on the results obtained from the chance selection of a terminal year Looking at certain terminal years, it appears that labor's share within unionized industries has been increased more (possibly as a result of union action) than in nonunion industries, but looking at other terminal years, it has increased less (and this could hardly be the result of union action), and looking at both sets of terminal years, the conclusion seems obvious that the selection of the terminal year is quite important because what was happening to the two sets of industries in the terminal year is quite important It is, of course, a little artificial to divide the economy into a "union sector" and a "nonunion sector," for unions are of varying strength in the former and not unknown in the latter However, it is helpful to look at the economy in this way in an endeavor to answer the question of whether or not unionization of industry tends to shift income within that industry toward employees and away from other factors.

Stigler notes "It is possible that the unions succeeded in increasing the share of labor income in total income."⁵³ He shows that wages and salaries as a percentage of income originating in selected manufacturing industries went up slightly from 1929 to 1947 in those which were

⁴⁹ *Ibid* ⁵⁰ Denison, *op cit*.

⁵¹ See Budd, *op cit*, p 269, for a summary of studies relating to this point See also Alfred H Conrad, "Redistribution through Government Budgets in the United States, 1950," in Alan T Peacock, (ed), *Income Redistribution and Social Policy*, (London Jonathan Cope, 1954)

⁵² Allan Murray Cartter, *The Redistribution of Income in Postwar Britain* (New Haven, Conn Yale University Press, 1955), chap 8

⁵³ George Stigler, *The Theory of Price* (New York Macmillan, 1952), p 259

unionized while they went down slightly for all manufacturing. However, had he taken the period from 1929 to 1950, he would have found both figures declining substantially and in about the same amount, which would have implied a different conclusion. The pertinent figures follow

Year	Labor's Share in Unionized Industry	Labor's Share in All Manufacturing
1929	69 1	73 1
1947	70 1	71 5
1950	61 7	66 1

Labor's share in 1947 in unionized industry was comparatively high, partly because unionized industry was caught more by reconversion problems involved in durable-goods production—with specific negative effects on profits—than was manufacturing as a whole. In 1950, both in unionized industry and in all manufacturing, labor's share went down as a result of the inflation in prices and profits due to the Korean War, but this inflation was particularly great in the unionized durable-goods segment because consumers, profiting from World War II experience, undertook to stock up in the fear of a full-scale war.

Levinson may have been misled, twice, by his selection of a terminal year. First, he found that the union industrial group showed a gain in the share of employee compensation (excluding compensation of corporate officers) while the nonunion industrial group remained approximately unchanged from 1929 to 1947. Later, he found much the same results for the period 1929 to 1952.⁵⁴ Yet had he taken the period from 1929 to 1950, he would have found exactly the reverse situation, and from 1929 to 1951 the share for employees in the nonunion sector also showed a greater gain than for the union sector (see Table 2).⁵⁵ We have already commented on 1947 and 1950 as terminal years. The year 1951 continued to be a good one for corporation profits in the durable-goods sector, although not quite so good comparatively as 1950, and this had an adverse effect on labor's share in the union sector.⁵⁶ The year 1952 was a poor time for corporation profits in the union sector, partly because of the prolonged steel strike, and this had the effect of raising

⁵⁴ Harold M. Levinson, *Unionism, Wage Trends, and Income Distribution, 1914-1947* (Ann Arbor, Mich.: University of Michigan Press, 1951), p. 106, and "Collective Bargaining and Income Distribution," *American Economic Review* (May, 1954).

⁵⁵ Table 2 is calculated according to the method used by Levinson but with the most recent figures available for each year, and some have been corrected since they were available to Levinson. The industry mix is held constant throughout the periods used.

⁵⁶ For a similar conclusion to that presented here for the period from 1929 to 1951, see Paul E. Sultan, "Unionism and Wage-Income Ratios 1929-1951," *Review of Economics and Statistics* (February, 1954), and for a similar conclusion for the period 1929-1950, see Budd, *op. cit.*, p. 252, and Denison, *op. cit.*

TABLE 2 COMPENSATION OF EMPLOYEES AS PER CENT OF PRIVATE NATIONAL
INCOME BY SECTOR 1929-1947, 1929-1950, 1929-1951,
1929-1952, 1929-1953, 1929-1954

Year	Nonunion Sector (Agriculture, Trade Finance, Service)	Union Sector (Mining, Construction, Manufacturing, Transportation, Communication)	Combined Sectors
1929	21 8	34 2	56 0
1947	22 4	36 5	58 9
1929-1947	0 6	2 3	. .
1950	23 1	34 3	57 4
1929-1950	1 3	0 1	
1951	22 7	34 7	57 4
1929-1951	0 9	0 5	
1952	22 9	35 9	58 8
1929-1952	1 1	1 7	
1953	23 6	36 5	60 1
1929-1953	1 8	2 3	
1954	24 4	37 3	61 7
1929-1954	2 6	3 1	.

SOURCES Data for 1929, 1947, and 1950-1953 from *Survey of Current Business, National Income* (1954), table 13 (income) and table 14 (compensation of employees), for 1954 from *Survey of Current Business* (July, 1955), table 13 (income) and table 14 (compensation of employees)

labor's share in that sector. Thus the selection of 1947 and 1952 as terminal years gives rise to the conclusion that unionization has raised labor's share. Similarly, the selection of 1950 and 1951 might give rise to the conclusion that unionization has had an adverse effect on labor's share. Neither conclusion would seem warranted. A more adequate conclusion might be that in the United States to date unionization has had relatively little measurable effect on labor's share, industry by industry, and, further, that the special circumstances of each terminal year must be closely scrutinized in attempting to evaluate the impact of the unions. Parenthetically, it might be noted that the recession which started in the second half of 1953 and continued into the first half of 1954 may have helped to raise labor's share somewhat in both sectors.

7. The degree of unionization by metropolitan areas appears not to be significantly related to labor's share of manufacturing income in these areas (see Table 3). If any conclusion can be reached from these statistics, it is that complete or nearly complete unionization of an area has a tendency to shift income toward wages, at the expense of the other income-recipient groups, but before this conclusion could be reached, a very careful study would need to be made of the effect of the industry mix in highly, as compared with less highly, unionized areas—and this is difficult to do because the mix varies so much from one metropolitan area

TABLE 3 WAGES OF PRODUCTION WORKERS AS A PER CENT OF VALUE ADDED BY MANUFACTURE IN 1947 FOR STANDARD METROPOLITAN AREAS BY DEGREE OF UNIONIZATION

Proportion of Workers Covered by Union Agreements (by Standard Metropolitan Area)	Wages as a Per Cent of Value Added
<i>90 per cent or more of plant workers</i>	
Albany, Schenectady, Troy	45 4
Buffalo	41 6
New York-Northeastern New Jersey	37 5
Cleveland	41 8
Detroit	49 9
Milwaukee	40 8
Pittsburgh	47 3
St Louis	37 9
San Francisco-Oakland	37 5
Seattle	48 9
Weighted average	41 1
<i>75-89 per cent of plant workers</i>	
Allentown-Bethlehem-Easton	49 2
Birmingham	38 7
Boston	38 2
Cincinnati	35 3
Hartford	47 5
Indianapolis	41 0
Kansas City	33 3
Los Angeles	38 8
Louisville	29 5
Minneapolis-St Paul	33 5
Philadelphia	40 7
Phoenix	26 5
Richmond	24 5
Trenton	42 4
Weighted average	38 4
<i>50-74 per cent of plant workers</i>	
Chicago	39 4
Columbus	37 9
Denver	36 3
Houston	34 1
Jacksonville	29 6
Memphis	31 4
New Orleans	35 1
Norfolk-Portsmouth	34 3
Providence	45 1
Salt Lake City	33 7
Scranton	49 2
Weighted average	39 1
<i>20-49 per cent of plant workers</i>	
Atlanta	34 1
Oklahoma City	28 5
Worcester	47 3
Weighted average	39 6

SOURCE *Census of Manufacturers* (1947), and *Monthly Labor Review* (January, 1953)

to another. It should be noted in analyzing Table 3 that Salt Lake City and Worcester, which are relatively little unionized, match Detroit and Pittsburgh, which are highly unionized, in wages as a per cent of value added by manufacture.

The conclusion from this record is that trade unionism in the United States to date has had no important effect on labor's share except as (1) it has encouraged an employee-oriented national economic policy with heavy emphasis on full employment and some tendency toward inflation—which by increasing corporation profits has served both to reduce the percentage share of labor as compared to what it would be in less prosperous periods, such as the 1930's, and also to shift income in the longer run away from interest and rent to the benefit of labor's share, (2) it has supported effective price control, (3) it has put wage pressure on employers temporarily unable to recapture profits—the special case of the reconversion period, where output was limited and the "administered prices" for durable consumer's goods were rising comparatively slowly, and (4) it has furthered progressive income taxes and thus raised the share after taxes. There is no evidence of any significant permanent effect through normal collective bargaining, except possibly in highly unionized metropolitan areas, where employers are caught between a higher-than-average wage and salary scale all-around and a roughly equalized national price structure. There may have been some slow secular shift toward labor over the half century since 1900, but most of it occurred before 1929⁵⁷ (thus before the rise of the modern trade union movement), and in nonmanufacturing sectors.

Great Britain

The British experience is different in details but not in essentials from the American experience. The available data are, however, much more adequate for analytical purposes and, in a really usable form, cover a far longer period. The British history may be summarized as follows:

1. The share of wages (not employee compensation) has risen slightly since 1870, from a little under to a little over 40 per cent (see Table 4), but the proportion of wage earners among the gainfully employed has gone down substantially. As a result, the average income of wage earners has gained more than that of the rest of the population. This comparative gain has not been at the expense of profits in the long run but rather of rent and more recently of salaries. Some of the gain relative to salaries may be due to the rising skill level of manual workers and the declining skill level of salaried workers, also, occupational differentials in highly developed economies gradually shift to favor manual workers increasingly over salaried workers, largely because of the provision of

⁵⁷ Johnson, *op. cit.*

TABLE 4 GREAT BRITAIN WAGES AND SALARIES AS PER CENT OF HOME-PRODUCED NATIONAL INCOME, WAGES' SHARE FOR CONSTANT PROPORTION OF WAGE EARNERS, 1870-1913 AND 1924-1950

Year	Wages as Per Cent of National Income	Wages' Share for Constant Proportion of Wage Earners*	Wages and Salaries as Per Cent of National Income
1870	38 6	34 0	54 8
1871	39 1	34 5	54 2
1872	42 0	37 2	56 4
1873	42 6	37 8	55 9
1874	41 2	36 7	54 6
1875	42 4	37 8	56 5
1876	41 8	37 4	55 7
1877	41 5	37 2	55 5
1878	40 3	36 2	54 7
1879	41 3	37 2	56 5
1880	39 8	35 9	54 6
1881	39 6	35 8	54 5
1882	40 7	36 9	55 9
1883	40 0	36 4	55 4
1884	40 0	36 5	56 6
1885	39 8	36 4	57 2
1886	39 0	35 7	56 9
1887	40 2	36 9	58 5
1888	40 2	36 9	58 0
1889	41 5	38 2	58 9
1890	41 5	38 4	58 8
1891	41 7	38 6	59 6
1892	41 8	38 8	60 5
1893	42 7	39 8	62 3
1894	41 7	39 0	61 1
1895	40 6	38 0	59 7
1896	41 3	38 8	60 6
1897	40 7	38 3	59 7
1898	40 6	38 4	59 3
1899	40 4	38 3	58 7
1900	40 7	38 7	58 6
1901	41 1	39 1	59 8
1902	40 0	38 2	59 0
1903	40 8	39 2	60 4
1904	39 0	37 6	58 5
1905	38 3	37 1	57 5
1906	37 5	36 5	56 1
1907	38 2	37 3	56 4

TABLE 4 GREAT BRITAIN WAGES AND SALARIES AS PER CENT OF HOME-PRODUCED NATIONAL INCOME; WAGES' SHARE FOR CONSTANT PROPORTION OF WAGE EARNERS, 1870-1913 AND 1924-1950
(Continued)

Year	Wages as Per Cent of National Income	Wages' Share for Constant Proportion of Wage Earners*	Wages and Salaries as Per Cent of National Income
1908	38 3	37 5	57 9
1909	37 8	37 2	57 3
1910	37 8	37 4	57 0
1911	37 8	37 5	56 7
1912	37 0	36 9	55 7
1913	36 6	36 6	55 1
1924	41 9	42 5	66 6
1925	41 8	42 5	66 1
1926	42 0	42 8	67 7
1927	41 3	42 1	65 7
1928	39 8	40 7	64 3
1929	40 1	41 0	65 2
1930	41 0	42 0	66 6
1931	41 7	42 8	69 1
1932	41 5	42 7	68 7
1933	40 7	41 9	67 6
1934	41 0	42 3	67 5
1935	40 3	41 6	66 5
1936	39 8	41 2	65 3
1937	39 3	40 7	64 1
1938	39 2	40 7	64 4
1939	38 3		62 3
1940	38 2		60 3
1941	38 3		59 8
1942	39 1		59 3
1943	39 3		59 4
1944	39 7		60 5
1945	39 3		61 3
1946	40 5		63 6
1947	40 8		63 2
1948	41 7	46 5†	64 5
1949	42 3	47 3†	65 8
1950	41 9	46 9†	65 3

* Proportion of wage earners to total occupied population for 1913 used as base. This column calculated from data in Phelps-Brown and Hart but does not appear in article. The next column is likewise calculated from the data given but does not appear in the article.

† Based on provisional data on proportion of wage earners among gainfully employed.

SOURCE E H Phelps-Brown and P E Hart, "The Share of Wages in National Income," *Economic Journal* (June, 1952), pp 276-277

better educational facilities which serve to augment greatly the supply of salaried workers

The most substantial gains in the share of wages took place during World War I and World War II, when full employment raised wages but inflation cut the shares of rent and salaries. This rearrangement of shares was no doubt inevitable in the long run anyway, but wartime conditions facilitated its introduction into the British economy. Rent as a share fell from about one-sixth of national income in 1870 to one-twentieth in 1950. Its share was cut in half in World War I and halved again in World War II. Salaries weathered World War I much better, partly because it was followed by a depression, but their relation to total wages paid dropped as a result of World War II conditions from about two-thirds in 1939 to under three-fifths in 1946 and subsequent postwar years. It may be expected, however, that over the course of time they will be restored, in part, to their earlier relationship, if there is no continued inflation. Even though the long-run tendency is against them and no depression occurs, steady, although not spectacular, adjustments may carry them back toward their earlier relationship to wages.⁵⁸

2. The share of wages over the cycle has not varied much, sometimes it has gone up slightly and sometimes down slightly. In the depression of the early 1930's, it rose only very moderately. The relatively steep rise in labor's share in the United States during a depression may be due largely to the inclusion of salaried workers (who are separated out in the British statistics), whose rates are probably cut less and whose employment most certainly is. The wage-and-salary share has risen in Britain in depressions more than the wage share alone—for example, in the early 1890's, 1926, and 1931. One would expect that the wage share itself rose less in Britain than in the United States during the early 1930's, not only because the capital-to-labor ratio is lower there, but also because the amplitude of the fluctuation was not so great. Cyclical activity in Britain during that period neither started from so high a level nor fell so low as in the United States. Also, agriculture, with its wider fluctuations in income, is not as important in the British economy as in the American.

3. Unionism, according to the excellent study of Phelps-Brown and Hart,⁵⁹ has forced the share of wages upward only when the unions have been aggressive and the employers at the same time faced a "hard" market, so that they could not escape easily and quickly through higher prices. Phelps-Brown and Hart note that in the United States the market is more protected from foreign competition and thus more likely to be "soft," allowing employers to escape. Perhaps, also, British unions have

⁵⁸ These observations are based on data contained in Phelps-Brown and Hart, *op. cit.*

⁵⁹ *Ibid.*

been comparatively more aggressive historically (although they curbed their aggressiveness after World War II with a policy of wage restraint), particularly in times of hard markets. In the United States, strong trade unionism has existed usually only when markets have been soft and not always even then, as in the 1920's. The American employer may also have had a greater chance to evade wage advances through laborsaving innovations in what has been a more progressive economy. Hard markets are likely to be particularly hard for agricultural products, thus some of the gain for wage earners under such conditions has been at the expense of agricultural producers, although labor's share has risen in times of hard markets even within the nonagricultural segment of the economy taken by itself.

Phelps-Brown and Hart believe that once employers are squeezed between aggressive unions and hard markets, they tend to go along at the new and lower profit margins more or less indefinitely until some new adjustment takes effect. But the new "normal" has never yet become a permanent convention of the economy. "Home profits," which is a residual figure after taking rent, wages, and salaries out of national income, were about one-third of national income in the period before World War I; they dropped to one-fourth in the 1920's, and to one-fifth in the 1930's, but they rose again to one-third in the 1940's, which is the more remarkable since they include interest. The employers finally escaped after twenty years of "capture," caused more by the depression than by the unions. As we have seen, unions can catch the employer to a degree in the case of hard markets, which characterized the 1920's and 1930's in Great Britain, but he can escape again in soft markets, which prevailed in the 1940's.⁶⁰ Since full employment, in the absence of price controls, means generally soft markets, the new "normal" share for profits may become more or less permanent.

4. The share of wages remained constant at first and then rose somewhat in Britain during World War II, probably, in part, because of the earlier and more effective price control and the absence of formal wage controls. The salary share, however, was cut at the start, for wages and salaries taken together behaved very much as did employee compensation in the United States, falling early in the war and then rising again.

5. A substantial increase has taken place, as compared with the period

⁶⁰ Four situations are possible (1) hard markets and hard unions, (2) hard markets and soft unions, (3) soft markets and hard unions, and (4) soft markets and soft unions. The share of wages tends to gain in the first case and the share of profits in the last, with the other two cases lying in between. The first case is illustrated by the period of "new unionism" starting in 1889, the second, by the period following the collapse of the union movement in 1879, the third, by the period after World War II, and the fourth, by the periods of 1903 to 1905, following the Taff-Vale decision, and 1926 to 1928, following the failure of the general strike.

prior to World War II, in the real income of wage earners, after direct taxes, relative to the real income of other elements in the population.⁶¹ Social expenditures for food and health, however, have been largely offset by higher taxes on beer, tobacco, and other purchases, so that the wage earners have made no net gain from these subsidies⁶² Cartter's careful study shows the net redistribution of income in Great Britain to have risen from 8.8 per cent in 1937 to 13.1 per cent in 1948-1949. During roughly the same period in the United States (1938-1939 to 1946-1947), the increase was from 5.4 per cent of national income to 7.5 per cent, a rate of increase quite comparable to that in Great Britain. The fiscal system was less effective in redistributing income in the United States than in Great Britain, but only because it bulks considerably smaller in comparison with total national income and not because it is less progressive.⁶³

This British experience suggests three modifications of the conclusions drawn from the American record. First, wage earners may gain at the expense of salaried workers. Second, full employment reduces the share of wage earners much less than the share of all employees, and unions are particularly concerned with the share of wages. Third, the redistribution effect of governmental programs depends not only on how progressive they are but also on the share of national income channelled through government.

Selected Other Countries

Data on labor's share are available for a number of countries besides the United States and Great Britain, but they are usually either so inaccurate or cover so short a period, or both, that they are largely useless for our analysis.⁶⁴ Data for four countries, however, are set forth in Table 5. The cases of Australia and New Zealand show the effect on labor's share of an economy geared to the international market and exporting one or more commodities with highly unstable prices. In 1950-1951 the share of labor dropped drastically in both countries. The explanation is quite

⁶¹ See Dudley Seers, *The Levelling of Incomes since 1938* (Oxford: Blackwell, 1951); also *The London Economist* (Jan. 21, 1950). There may have been a slight reversal in this trend quite recently. See Dudley Seers, "Has the Distribution of Income Become More Unequal?" *Bulletin of the Oxford University Institute of Statistics* (1st quarter, 1956).

⁶² Findley Weaver, "Taxation and Redistribution in the United Kingdom," *Review of Economics and Statistics* (August, 1950).

⁶³ Cartter, *op. cit.*, p. 84.

⁶⁴ See *National Income Statistics, 1938-1948* (New York: United Nations, 1950), for data on Belgium, Chile, Czechoslovakia, Finland, France, Netherlands, Norway, Peru, Puerto Rico, Southern Rhodesia, and Switzerland. See also Paul Jostock, "The Long-term Growth of National Income in Germany," in Simon Kuznets (ed.), *Income and Wealth*, ser. V (London: Bowes and Bowes, 1955).

TABLE 5. LABOR INCOME AS A SHARE OF NATIONAL INCOME (IN VARIOUS YEARS) FOR AUSTRALIA, NEW ZEALAND, CANADA, RUSSIA

<i>Australia*</i>		<i>Canada†</i>	
Years	Income as Per Cent of National Income	Year	Labor Income and Military Pay as Per Cent of National Income
1910-1911	56 8	1926	56 5
1915-1916	53 2	1931	72 2
1920-1921	57 2	1936	64 1
1923-1924	61 5	1941	60 3
1938-1939	60 1	1946	57 7
1945-1946	62 4	1951	57 1
1950-1951	48 8	1953	63 0
1952-1953	57 9		
<i>New Zealand‡</i>		<i>U.S.S.R. ¶</i>	
Salary and Wage Payments as Share of National Income Received		Wages and Salaries as Share of National Income	
Years		Year	
1938-1939	57 4	1928	32 3
1943-1944	43 3	1937	36 3
1948-1949	54 1	1940	33 6
1950-1951	45 9	1944	32 7
1952-1953	53 5	1948	35 7

* J. T. Sutcliffe, *The National Dividend* (Melbourne University Press, 1926), and *Yearbook of Labour Statistics* (International Labour Office, 1954).

† *Monthly Abstract of Statistics*, Special Supplement (July, 1953).

‡ Emile Bouvier, *Le Revenu National au Canada*, (Montreal Editions Ballarmin, 1952), and *Yearbook of Labour Statistics*, (International Labour Office, 1954).

¶ Oleg Hoefting, *Soviet National Income and Product in 1928*, (New York Columbia University Press, 1954), and Abram Bergson and Hans Heymann, Jr., *Soviet National Income and Product, 1940-1948* (New York, Columbia University Press, 1954).

simple. The price of wool rose very rapidly on the world market as a result of the Korean War, and this greatly raised agricultural incomes and lowered labor's share. When the price of wool quickly dropped again, labor's share assumed its normal level. Agricultural prices generally are not so subject to violent change in the United States and Great Britain, nor is agriculture so prominent a sector of the economy. However, in the United States the labor share and agricultural share also tend to move in opposite directions. Labor's share gained at the expense of agriculture's in the Great Depression and agriculture's share at the expense of labor early in World War II. The experience of Brazil (coffee), of Chile (copper), and of Malaya (tin and rubber) might be expected to follow the Australia-New Zealand pattern.

The behavior of labor's share in Canada follows the United States' pattern in a rather exaggerated fashion—a sharp rise in the Great Depression and a sharp decrease at the start of World War II. The greater importance

of agriculture and mining in the economy helps explain this more drastic variation. The rise in labor's share in 1953 followed substantial wage increases, due in part to rapid industrial expansion and to more aggressive unionism, at a time of stable prices.

The Russian experience demonstrates the role of governmental policy under conditions of a massive concentration of power and a heavy commitment to national survival and industrialization. The level is, of course, quite low for an industrialized nation, and it did not rise significantly over a twenty-year period despite a great increase in the relative numbers of nonagricultural workers, the figures do not hold the industry mix constant. The reduction of labor's share in advance of and during Russia's involvement in World War II is quite noticeable. The statistics indicate what can be done by a ruthless government dedicated to forced-draft industrialization and development of military power. The level of investment in new plant and equipment has been so high largely because labor's share has been kept so low. This must be the greatest case of "exploitation," in the sense of denying the individual worker the just fruits of his toil, in the history of any industrialized nation. But even with all its power, the Russian state has not been able fully to control the size of labor's share, for in order to be able to meet their quotas managers have "pirated" labor or hoarded it by adjusting piece rates and in other ways.

A few additional observations can be drawn from the experience of these four countries: (1) a large foreign-trade component in national income based on the export of commodities with highly flexible prices can cause erratic fluctuations in labor's share, (2) the more substantial the agricultural sector of the economy, the more likely it is that labor's share will change substantially over the cycle, and (3) an all-powerful government can drastically reduce labor's share.

SUMMARY OF EXPERIENCE BY TYPE OF POLICY

We may now turn to a summary of this historical experience as related to the six types of union policy set forth earlier.

1. Pure and simple unionism, with its defensive policy of rigid money-wage rates during a depression, can raise labor's share under conditions of a hard market, and, perhaps, also where a metropolitan labor market is highly unionized but the commodity price level is largely set by national markets, *i.e.*, in what might be termed a "hard" area.

2. Wage-policy unionism has different consequences depending on the policy. There is no useful experience in evaluating the just-wage program, but almost certainly a policy of wage restraint can lower labor's share somewhat and a policy of class shares can hold it steady or even raise it at least temporarily.

3 There is no trustworthy evidence on the effect of managerial unionism

4 New Deal unionism reduces labor's share, but probably more in the short run than in the long run It aids profits but hurts the rent and salary shares

5 Labor-party unionism clearly increases labor's share of redistributed income, and the effectiveness of this policy depends not alone on the progressiveness of the resultant program but also on its size

6 Direct-controls unionism enhances labor's share When carried to the length of a fully planned economy, however, this governmental power can be used as well, and perhaps more likely, for the opposite purpose

While labor's share may rise for other reasons, unions can only really catch profits in a depression, which they hardly want, or through price controls, which are usually deemed a quite unpleasant or even impossible method, or through governmental distribution, which carries them into an area of activity which the Webbs termed "legislative enactment" and which, as they pointed out, generally works better with a labor movement than with just labor unions, but a labor movement, with its labor party, may give up through wage restraint some of what it gains through redistribution policy. In addition to wage restraint, a policy of full employment can reduce labor's share, but both policies may be considered quite valuable or even indispensable for other reasons

Labor's share, except in the more advanced types of policies (class shares, managerial unionism, labor-party unionism, and planned economy), is not approached as a "decisional" matter, no one decides that labor's share should be at one level or another In all other cases, any effect on labor's share is more or less inadvertent For labor's share to become a decisional matter, the unions or their political allies must have a great deal of decision-making power.

CONCLUSION

Samuel Butler once observed that "life is the art of drawing sufficient conclusions from insufficient premises." This is too often the task of the economist. He seeks answers to important questions which lend themselves to no sure response So it is here. We have, however, ventured a reply to our question Under what circumstances, if any, can trade unionism affect distributive shares and in what fashion? Part of the answer is that, under certain conditions, it can affect distributive shares It can reduce labor's share through the furtherance of a policy of continuing full employment, particularly if combined with a policy of wage restraint, and perhaps also through the application of the standard rate It can raise labor's share, in particular, through standard collective bargaining when

employers cannot quickly escape; or through support of the application of effective price controls, or, in terms of "kept" income, through the encouragement of progressive taxation and subventions

The other part of the answer is that, while it can raise labor's share, it cannot raise it by very much. In the United States, to date, the impact has been minimal. The power of trade unionism, to use Galbraith's terminology, has been apparently "countervailing" and not "original."⁶⁵ One can only speculate about what might have happened if this "countervailing" power had not developed, but the American worker, in its absence, certainly would not have been condemned to a share so grossly below what one might expect as are the poor South African workers, as reported in the previously noted study by Paul Douglas. In Great Britain, on the other hand, through what might be viewed as "original" political power, a significant redistribution has taken place.

Now it might be concluded that the union pursuit of the employer through collective bargaining is much ado about very little, that unions are relatively powerless institutions in a market which responds to other, more persuasive, forces. This may well be. However, this could not be known surely in advance, and it is worth knowing. Workers could not be expected to accept the broad allocation of income among distributive shares without having their organizations explore the possibilities of major shifts. The probing of the situation by the unions gives the workers a greater assurance of the equity, or at least the inevitability, of the distributional pattern. Thus the pursuit of the employer may be of worth even if he is never caught at all.

To the extent that distributive shares are affected at all substantially, this comes about permanently only from a significant shift of decision-making power away from the employer to the union or the government or to both. Boulding has written, as previously noted, that "distribution depends on decisions and mainly on the decisions of the capitalist." As more decisions are made by trade union leaders and government representatives, they too can affect distribution, but this requires that they enter a long way into the direction of economic processes at the plant or industry or national level. The avenues for escape by employers must be narrowed or closed if labor's share is to rise at the expense of profits. Knowledge of this fact may, of course, sharpen labor's desire to deepen its control, directly or indirectly, and management's desire to resist.

This brings us up against the problem of absolute shares. As we noted at the start, they may move in an opposite direction from relative shares. For example, in moving toward full employment, the absolute share of

⁶⁵ John Kenneth Galbraith, *American Capitalism* (Boston: Houghton Mifflin, 1952), p. 143.

labor (whether in real or money terms) will rise with the expansion in the number of jobs, yet the relative share will fall. If the policy of the standard rate has any effect in lowering labor's share, it may, at the same time, by penalizing the inefficient and rewarding the efficient producer, raise the absolute share of labor.

Similarly, price controls or progressive taxes could so reduce efficiency and retard investment that the absolute share of labor in the long run would be lowered even though the relative share would be increased. It is the size of the absolute share which is the more important, even in the short run, consequently the significance of what is happening to relative shares can be understood only by reference to the much greater significance of the trend in the magnitude of absolute shares.

But functional shares, whether relative or absolute, may be a rather dated way of looking at distribution, at least in the United States—a hang-over from the classical economists and the Socialists. In the days of Ricardo and Marx, there was a close correspondence between function and class, between the supply of labor and the worker, and between the supply of property and the capitalist. But today there is an increasing percentage of employee compensation in the top 5 per cent of income recipients and more dividends in the lower 95 per cent,⁶⁶ the president of the company may get a large share of his income in the form of employee compensation and the worker a significant share of his in the form of rent or interest. What does it mean to talk of labor's share when the president of the company is labor and the worker a small-scale capitalist? Also the clear-cut distinction between the managers and the managed is breaking down with the subdivision of managerial tasks and the great growth of clerical and technical employees. The painfully evident divergence between worker and capitalist is disappearing both in source and amount of income,⁶⁷ and in possession of authority. We stand a long way from a society based on two sharply differentiated classes. Transfer payments through government are also much more important than they were at the time of Ricardo and Marx. It is therefore probably becoming much more important to measure and to discuss size distribution than share distribution, and this has the added advantage that it is less likely to lead to a class-conflict approach to income distribution organized around functional groups. From the standpoint of social peace, it is better to discuss

⁶⁶ Simon Kuznets, "Long-term Changes in the National Income of the United States since 1870," *op cit.*, p. 150.

⁶⁷ It would be interesting to examine how income distribution could have been equalized as much as it has been with so little effect on labor's share, or, put the other way, how labor's share could have remained so steady at the same time that it was possible to equalize personal incomes substantially in both the United States and Great Britain.

the share of, say, the bottom 25 per cent of income recipients than to deal in terms of the farmers' share or of labor's share

Returning, however, despite these hesitations, to the concept of labor's relative share, we may ask again and finally Which of the four theories given at the start is more nearly correct? The answer given here has been, in effect, the fourth—the "social-group" theory—within limits.⁶⁸ Labor can change the pattern of distributive shares by its economic and political efforts, but there are confines to what its efforts can accomplish. It can remodel this sorry scheme of things only somewhat closer to its heart's desire, this is one of the great lessons of industrial society since the utopianism of a century ago and its Socialist aftermath.

⁶⁸ Or it might be put another way around, the third (marginal-productivity) theory—with exceptions

11. National Wage-structure Comparisons

A major goal of comparative studies is the discovery of common causal forces operating among the apparently disparate entities being compared. This is the aim of the analysis of national wage structures that follows. By comparing wage-structure changes within their economic and institutional contexts, this study seeks to distinguish those areas in which national economic and institutional differences have had a decisive effect upon wage structure from those in which their effect has been subordinate to more general causal factors.

Historically, international wage comparisons have emphasized the measurement of money- and real-wage levels and neglected the study of wage structures. The recent appearance of several international wage-structure publications¹ has added considerably to our knowledge, but a formidable gap still remains between the generous number of wage-level studies and the scarcity of materials on wage structure. Of necessity, the international comparison of wage structures has serious limitations. As partially incomparable data are adjusted for comparative analysis, the heroic qualification and the lengthy footnote become common. Conclusions based on such data must remain tentative. Yet, despite these limitations, the results are often illuminating and suggest further and more definitive research for the future, when recently adopted or projected statistical programs will have provided more reliable and comparable data.

¹ See, for example, *Textile Wages*, International Labour Office, Studies and Reports, new series, no. 31 (Geneva, 1952), "Salaries and Hours of Work in Government Service An International Comparison," *International Labour Review*, vol. 68 (October-November, 1953), pp. 407-418, "Changes in the Structure of Wages in European Countries," *Economic Bulletin for Europe*, vol. 2 (2d quarter, 1950), pp. 52-63, and a detailed comparison of wage structures in French and German railroads in the *Revue de recherches économiques franco-allemandes* (3d quarter, 1952). Unfortunately, the most extensive analysis to date was published after this chapter was completed. See Lloyd G. Reynolds and Cynthia H. Taft, *The Evolution of Wage Structure* (New Haven, Conn., Yale University Press, 1956).

The following wage problems appear particularly well suited to this comparative approach²

1. Which aspects of wage structures and their development are common to all or most countries and which are peculiar to individual countries? Can a single theoretical model reasonably explain the most important factors in wage structures in industrialized countries? Can this model be extended to underdeveloped countries as well?
2. Why are there considerable differences in the wage-determining institutions of the various countries?
3. Has the variety of institutions for determining wage rates and earnings exerted any differential effect on the development of wage structure? For example, do government wage board decisions, minimum-wage regulation, unilateral employer decisions, and collective bargaining (varying from nationwide to single plant) yield different wage-structure changes in response to inflation, full employment, or dramatic changes in real national income? Or is there sufficient administrative latitude to allow essentially similar adjustment to such economic factors despite widely differing institutional pressures?

4. How does the economic capacity of a nation affect its wage structure? What limitations do differences in real per capita national income impose upon wage policy?

5. What is the effect of differing patterns of industrialization upon wage structure? How have the countries that industrialized early or very quickly differed from those that industrialized later or more slowly?

This chapter will concentrate on the first, third, and fourth questions. In addition, an attempt will be made to test the usefulness for international wage studies of the theoretical concepts advanced in earlier chapters.

THE CONTOUR CONCEPT IN INTERNATIONAL WAGE STUDIES

In earlier chapters, particularly those of Dunlop, Livernash, Ross, and Lester, the factors that determine the scope of wage-determining units have been discussed at length. For convenience, the terminology of the Dunlop chapter will be used here. Undoubtedly the concepts of job clusters and wage contours have universal application in the study of wage structures. In every country one finds internal job groupings that, for technological, administrative, or social reasons, relate the jobs within the group more closely to each other than to jobs outside the group. Similarly, the external wage relationships within any country reveal

²For a more extensive discussion of this methodology, see John T. Dunlop and Melvin Rothbaum, "International Comparisons of Wage Structures," *International Labour Review*, vol. 71 (April, 1955), pp. 347-363.

groups of wage-determining units linked by product markets, similar sources of labor, or labor-market organization

More interesting are the administrative and institutional differences that appear in the uses and patterns of job clusters and wage contours. In some countries comparison of key jobs within a local labor market or within an industry is frequent and widespread. Wage-determination customs and techniques in other countries minimize such comparisons and emphasize national wage-level changes or the wage relationships among several industries and within broad regions. A rough system of national job description or job evaluation using broad skill groups may be substituted for specific occupations in the wage-determination process. And the manipulation of specific job rates may be less common, though extreme labor shortages may result in extensive upgrading. In a like manner, wage contours in some countries center about the smallest workable contour (small product-market subdivisions or local labor markets) and the largest workable contour in other countries (nationwide intra- or inter-industry units). To explain the emergence of these institutions is essentially the sphere of the economic historian and beyond the scope of this chapter. Undoubtedly the period, type, and speed of industrialization, the attitudes and organization of the managerial elite, the ideology and strength of trade union movements, and the traditions of governmental interference in the wage-determination process are important factors. Our concern will be with the interrelationship between these diverse practices and institutions and the wage structure.

Clearly the causal relationship operates in both directions. For example, a trade union movement with a highly egalitarian ideology may discourage contours of a craft nature and hasten a decline in skill differentials. On the other hand, a low skill differential resulting from chronic inflation may finally become accepted, thus reducing the incentive for the establishment of particularist craft contours and strengthening the tendency for wage changes undifferentiated by skill or firm. Again, the beliefs that employers, unions, and government bring to wage determination in regard to the family, leisure, and security may earmark a large part of labor income for uses outside the direct wage (family allowances, paid holidays and vacations, pensions, sickness and accident insurance, etc.). Or the same result may be achieved by a redirection of labor income during economic crisis. Since these components of labor income often operate on a national scale, their institution and acceptance strengthen contours that are very broad in scope. The reduction in the direct wage component that necessarily follows may result in a direct wage structure with smaller skill, industry, and regional wage differentials. If such a wage structure is wholly or partially acceptable, it lessens the incentive

for particularist wage activity even in the direct wage component of income and thus sets up a self-reinforcing trend toward broader contours.

The variety of income components deserves considerable emphasis in international wage studies, for the scope of the relevant contour may vary with the component under discussion and the shift of income from one component to the other may thus imply a shift in the importance of individual contours. More important, perhaps, this income shift may be accompanied by a change in the direction of employer and trade union activity from the economic to the political arena.

Finally, international wage studies underline the need for distinguishing between formal and effective contours. Discussion of the American scene has emphasized that apparently decentralized decisions may, in fact, constitute an effective and extensive contour, and some discussions of multi-firm bargaining have shown that the effective contour may, in fact, be somewhat smaller than the formal one. It is this latter phenomenon that is of greater importance in foreign wage experience. Broad formal contours often conceal considerable diversity, particularly when the wage determination is over minimum rates, when it is the first in a series of negotiations that are narrower in scope, or when the negotiations take place between loosely disciplined associations. The individual actions (often administrative in nature) of more homogeneous units within the formal contour usually reflect economic factors in their particular labor or product markets, though they may also reflect institutional factors at this lower level.

Because of the belief that broad effective contours have been important in postwar years, some discussion has taken place about the failure of wages of fairly defined subgroups to follow differential changes in employment, productivity, and profitability. An evaluation of this argument is also included in the analysis that follows.

FOREIGN WAGE EXPERIENCE: PRE-WORLD WAR II TO 1952

Dramatic changes in wage structure took place from 1938 to 1952. These changes are analyzed below for the United States and several European countries in, first, a general review covering a considerable number of countries, and, second, a detailed analysis of changes that took place in France, Italy, and the United States. While the review draws heavily on the literature in the field, the detailed analysis and evaluation of changes are based almost exclusively upon the author's studies.³ As

³ These studies were originally made for a Harvard University Ph.D. thesis, "An Interpretation of Wage Structure Changes in France, Italy, and the United States from 1938 to 1952," 1954. They have since been supplemented by further research and interviewing in Europe during 1954 and 1955.

used here, the term "wage structure" includes not only the wage hierarchies by skill, industry, area, sex, and age but also the distribution of the individual wage among various income components—direct wages, special allowances, fringe benefits, and social-insurance benefits.

The period from 1938 to 1952 was marked by extreme disturbances. Most of the countries studied participated in the war and many experienced occupation by foreign powers or fighting within their national boundaries. Economic dislocation was almost universal and outright destruction of economic capacity not uncommon. Reconstruction requirements and inflation posed serious problems in the postwar period. Therefore, during the years from 1938 to 1952, most countries concerned themselves with control of the general wage level rather than with details of the wage structure. With production and marketing badly dislocated and prices rising rapidly, employers, unions, and government officials concentrated on real wages and real living standards. But structural wage changes played a major, though a less obvious, role in this process of adjustment, often providing a flexibility that was impossible to secure by general wage-level adjustments alone.⁴ Thus this period is valuable in that one can observe the wage structure as an adjunct to wage-level policy. The period has another virtue for the wage analyst. Wages rose rapidly and wage determination was often disorganized. Controls on wages proved difficult to police, so that numerous ingenious (and often illegal) bonuses, allowances, and payments in kind came into effect. These heterogeneous wage adjustments introduced anomalies into the wage structure that required adjustment in the postwar years. Recognizing this need, employers, unions, and government bodies developed specific programs for rationalization of the wage structure, and in most cases a compromise of these divergent viewpoints was put into effect. Thus it is possible to study the deviation of actual wage rates and earnings from these new and rationalized wage structures.

Unfortunately, substantial statistical obstacles offset the virtues of the period. Wartime and postwar disturbances broke the continuity of many statistical series. Some simply stopped for a period, others are of doubtful validity because of inadequate coverage, fraudulent returns, and extreme shifts in the composition of the sample firms. Within the scope of this chapter, it is impossible to review the statistical problems involved. One can note only that the margins of error often are wide and that small changes have little significance. Fortunately, most of the structural changes in this period are substantial and unmistakable, so that the need for evaluating small shifts is minimized.

⁴ A pure wage-level change would be one which left the wage structure completely unchanged. Obviously such a change is rarely found and one can only talk in terms of changes that are primarily wage-level or primarily wage-structure changes.

General Trends in Wage Structure

No single trend of wage-structure changes fits the experience of all countries from 1938 to 1952. The economic position and wage structure at the beginning of the period, the differing experience with war and inflation, and the specific wage policies pursued shaped a slightly different pattern for each country. Yet most countries conform to certain central tendencies and, as a first approximation, one might call this a period of increasing wage uniformity.

The most universal trend was the relative decline in the position of skilled workers as compared to unskilled workers.⁵ Many causes may be cited for this trend: the tendency for wage increases during inflation to take the form of equal flat-rate increases to all skill classes, greater equalization of bargaining strength among organized and unorganized workers because of full employment; preference of government agencies for the lesser inflationary impact of wage increases limited to, or with a larger percentage increase to, lower-paid workers, the egalitarian goals of certain trade union movements, and, in some countries, the desire to have temporary decreases in real national income bear less heavily on low-income workers.

Wage gains for female and juvenile workers since they ordinarily occupy lower-paid jobs, resulted from many of the same cyclical causes that led to increases for unskilled workers. In some cases, however, the gains were greater, reflecting government or collective-bargaining policies effected during this period.

The decline in the position of skilled workers has caused some anxiety. In particular, many people have been concerned about the effect of such a decline on the supply of skilled labor to industry and upon the morale of skilled workers already employed in industry.⁶ Some discussion has

⁵ "Changes in the Structure of Wages in European Countries," pp. 56-57. The majority of countries cited experienced this decline, the compression being especially sharp in Italy, the United Kingdom, Norway, Netherlands, Switzerland, and Germany. Belgium and Denmark showed little change while Eastern European countries instituted wage policies designed to open the skill-differential structure. For the decline in the United States, see H. M. Douty, "Union Impact on Wage Structures," in *Proceedings of the Sixth Annual Meeting of the Industrial Relations Research Association* (Madison, Wis., December, 1953), pp. 61-76. Skilled workers in Australia did remarkably well in maintaining their wage differentials. See D. W. Oxnam, "The Relation of Unskilled to Skilled Wage Rates in Australia," *Economic Record*, vol. 26 (June, 1950), pp. 112-118.

⁶ For a few examples, see Val R. Lorwin, *The French Labor Movement* (Cambridge, Mass.: Harvard University Press, 1954), p. 232; J. E. Isaac, "A Wages Policy for Australia," *Economic Record*, vol. 26 (June, 1950), pp. 1-17; "Changes in the Structure of Wages in European Countries," pp. 57-58, *Report of the Director General, International Labour Conference*, 34th sess. (Geneva: International Labour

centered also around the tendency of piece-rate and other incentive-wage systems to introduce anomalies into previously rationalized wage relationships and to introduce a false appearance of a narrowing in the skill differential when, in fact, there were highly variable changes in the relationship between the piece-work earnings of semiskilled workers and the time-rate earnings of skilled workers.⁷ The problem is a difficult one in wage administration, undoubtedly increasing in complexity with the size of the wage-determining unit.

In addition to the cyclical factors noted above, numerous writers have discussed the secular decline in the skill differential. The supply of labor capable of assuming semiskilled and skilled jobs rose with higher educational levels, the supply of labor in the younger age groups declined with the rise in school-leaving age, the unskilled worker's job became more mechanized, and the skilled worker's job was often diluted.⁸

Less attention has been paid to the secular changes in skill differentials in particular industries. Dissimilarities among industries have been explained by differences in the acceptance of wage rationalization, in the ratio of skilled to unskilled workers in the industry, and in the definiteness of the promotional ladder.⁹ Further study is needed to determine the effect of secular changes in employment upon the skill differentials of individual industries, especially where there are large numbers of skills peculiar to the industry, and the point at which considerations of morale

Office, 1951), pp. 51-52, P. S. Pels, "The Development of Wages Policy in the Netherlands," *Bulletin of the Oxford Institute of Statistics*, vol. 12, (July-August, 1950), p. 222, Banca d' Italia, "Relazione del Direttore Generale alla Adunanza generale ordinario dei Partecipanti tenuta in Roma il 31 Marzo 1948," cited in *Rassegna di Statistiche del Lavoro* (May 10, 1948), p. 62.

⁷ Allan Flanders, "Wages Policy and Full Employment in Britain," *Bulletin of the Oxford Institute of Statistics*, vol. 12 (July-August, 1950), pp. 240-242, "Changes in the Structure of Wages in European Countries," pp. 59-60.

⁸ See the discussion by H. M. Douty, *op. cit.*, pp. 67-68. He notes the discontinuance of common-labor wage-rate studies by the Bureau of Labor Statistics because of the difficulty of finding comparable common-labor categories after this process of mechanization began. A similar problem arises with skilled workers. There is a tendency to present the skilled worker with a less complex job that has been simplified by the work of the engineering or design department. Though the occupational title may remain the same, the job content differs. Thus this shift of skill to the engineering department makes the comparability of data over the course of time debatable. For some interesting remarks on the effect of an aging population on labor supply, wage differentials, and the incentive to acquire skills, see Mario de Vergottini, "Invecchiamento e capacità produttiva della popolazione," *Quaderno della Rassegna di Statistiche del Lavoro*, Quaderno VIII (March, 1954), p. 258.

⁹ H. M. Douty, *op. cit.*, pp. 73-76, and H. A. Turner, "Trade Unions, Differentials, and the Levelling of Wages," *The Manchester School of Economics and Social Studies*, vol. 20, (September, 1952), pp. 227-282.

inhibit the working out in the wage structure of differential movements in labor demand.

For example, an interesting and important comparison can be made between the experience of the railroad industry and that of the electrical generating, transmission, and distribution industry. Both industries are subject to considerable government regulation, often including decrees on wage levels and wage structure. Since these two industries often have opposite secular trends in employment, the effects of such decrees upon recruitment and morale differ radically.

Similar tendencies toward wage uniformity became evident in the wage relationships among major sectors of the economy and major industries. Almost without exception, agricultural wages have risen more than industrial wages and, in most cases, mining wages have also exhibited a rise in relative position.¹⁰ For the most part, the shift from conditions of depression to those of full employment explains this change. The depressed wages and poor working conditions in agriculture and mining were no longer feasible when full employment in secondary industry allowed workers to shift jobs without fear of lengthy unemployment. It should be noted that the decline in relative wage differentials from 1938 to 1952 was, in some cases, simply a reestablishment of wage ratios that existed in the 1920's; in other cases the compression went considerably beyond these wage ratios. A similar explanation holds for low-wage industries. In order to maintain or expand their labor force under full-employment conditions, they were forced to pay wages more proximate to those received by other industrial workers. This movement was reinforced by the increased power of labor unions in these industries during the period and by the ability of low-wage industries to accept increased labor costs during a period of high demand. Further support came from government wage policies favoring low-wage industries.

The closeness of the relationship between employment and relative wage position is striking. Countries showing the largest relative wage gains for agricultural workers are those where employment tended to be very high, while countries with problems of underemployment and unemployment showed the smallest gains.¹¹ The earnings of textile workers show definite losses in the postwar textile slump, and differential employment changes in other industries are likewise reflected in their earnings position. But as later discussion will demonstrate, the extent of these shifts was conditioned also by the prevailing methods of wage determination.

The tendency for low-wage regions to be heavily represented by agriculture and agriculture-oriented industry that differs substantially from

¹⁰ "Changes in the Structure of Wages in European Countries," pp. 52-53.

¹¹ *Economic Survey of Europe since the War*, (Geneva: United Nations Economic Commission for Europe, 1953), p. 157.

the industrial complex of higher-wage regions makes satisfactory analysis of regional differentials difficult Nevertheless, regional wage differentials, properly speaking, also tended to narrow This can be attributed, in part, to the same factors discussed above—changes in labor supply-and-demand conditions and government wage activity favorable to low-paid workers—but it also reflects specific government or trade union policy in regard to regional wage differentials And in some countries it is an indication of the relative ease of compression in the regional wage structure as compared to interindustry and skill differentials The pressures generated by tight labor markets and inflation tended to move into the areas of least resistance, so that countries with interindustry and skill differentials already compressed at the beginning of the period experienced sharp curtailment of their regional wage structure.

Finally, the leveling of the wage structure took place more subtly through the displacement of direct wage income by various indirect forms of labor income, such as family allowances, pensions, and accident and health benefits Since the taxes and contributions for these benefits were ordinarily levied as a proportion of earnings, while the actual payments tended to be an absolute amount for all eligible workers, the income structure of the wage-earning class was leveled considerably

While certain common tendencies and common causal factors have been noted above, one should not lose sight of the differences A most important distinction must be made between countries that had a rising real national income and thus were able to develop wage policies under conditions in which genuine and politically practicable alternatives existed and countries that had a static or decreased national income and thus had their policies “forced” upon them by postwar and wartime economic conditions¹² The distinction is particularly important in evaluating the degree, as compared to the direction, of change in wage structure.

A Three-country Analysis

In order to study these general wage trends in more detail, the relationship of wage-structure changes to a broad group of economic variables is analyzed below for three countries These variables include demographic changes, investment policies, national-income fluctuations, and the details of collective bargaining and government wage policies The three countries—France, Italy and the United States—have widely differ-

¹² This is similar to the distinction made by Bergson, that the equalization of real income in the early years after the Russian revolution was “the measure of a ‘besieged fortress’ rather than the measure of a socialist economy” See Abram Bergson, *The Structure of Soviet Wages*, (Cambridge, Mass Harvard University Press, 1946), p 47.

ing systems of wage determination To oversimplify greatly, the key factor in wage determination in France is government wage policy, in Italy, highly centralized collective bargaining, and in the United States, relatively decentralized collective bargaining.¹³ Similarly, the economic condition of the three countries is diverse, including the level and short-run movements of real national income, the degree of inflation and unemployment, and the problems of underdeveloped regions and reconstruction Each of these factors had important repercussions on wage policy.

Despite these differences, the wage-structure changes of the three countries show certain similarities What are these similarities and how well do they stand up under closer examination?

Skill Differentials

Percentage skill differentials decreased and absolute skill differentials increased in all three countries The percentage changes were roughly as follows¹⁴

PERCENTAGE BY WHICH THE SKILLED WAGE
EXCEEDS THE UNSKILLED WAGE

	<i>During</i> 1937-1940	<i>During</i> 1952-1953
Italy	54	25
France	30	23
United States	65	37

The United States and Italy, the countries with the highest skill differentials in the prewar period, had the largest declines Obviously this yielded greater uniformity in the size of skill differentials among the three

¹³ These wage-determination systems will be discussed in more detail below

¹⁴ The statistics for Italy are taken from the *Rassegna di Statistiche del Lavoro* (January-February, 1954), p 99, for France, from the *Bulletin Mensuel de Statistique*, Supplement, new series (April-June, 1953), p 53, for the United States, from the *Monthly Labor Review*, vol 67 (August, 1948), p 130, and vol 76 (November, 1953), p. 1171 Data for Italy are for 1938 and 1952 The differential is that between the minimum contractual wage rates for *operai specializzati* and *manovali* Data for France are for 1938 and 1952 The differential is that between the wage rates (as reported by the Conseils de Prudhommes) for *professionnels* and *manoeuvres* For Paris alone, the skill differential was 34 per cent in 1938 and 30 per cent in 1952 For the Provinces, the percentages were 29 per cent and 22 per cent, respectively Because of finer skill distinctions, the Ministry of Labor data in the postwar period show higher differentials but a similar trend

Data for the United States are derived from individual industry studies made between the years 1937-1940 and 1952-1953 The differential in the former period is in the straight-time hourly earnings of skilled production and maintenance workers as opposed to those of janitors and hand truckers and, in the latter period, between the respective earnings of skilled maintenance workers and janitors

countries in the postwar period. More important, it indicates limits to the degree of skill-differential narrowing, at least in the short run. Other evidence supports this view. The Italian skill differential declined to 11 per cent in the immediate postwar years. The resulting disturbances in the Italian labor market¹⁵ caused a doubling of the skill differential shortly after the price level stabilized. In the United States a series of special increases were made to skilled workers in many industries, thus allowing them to regain part of their wartime losses in relative wage position.¹⁶ And in France there were numerous complaints and fears in regard to the narrowness of the existing skill structure of wages.¹⁷ Similar experiences may be recorded for other countries in which compressed skill differentials caused labor unrest.¹⁸ During the period of this study, the existence of unrest among the employed skilled labor force was a more formidable obstacle to skill-differential narrowing than actual deficits in the supply of skilled labor in relation to present or even future demands for such workers.

The pressures operating on skill differentials can be seen clearly in the pattern of deviation of wage rates and earnings. In both Italy and France, the rise in wage rates has been substantially smaller than the rise in earnings. And in both countries, the amount by which earnings exceed wage rates is larger for skilled workers than for unskilled workers.¹⁹ Thus the pressures for enlarging skill differentials were relieved by special administrative arrangements and policies at lower levels that modified the narrowing tendency of wage rates in the broad collective agreements. This has come about partly because of the tighter labor market for skilled

¹⁵ Banca d'Italia, *op. cit.*, p. 62.

¹⁶ Douty, *op. cit.*, p. 75.

¹⁷ Val R. Lorwin, "France," in Walter Galenson (ed.), *Comparative Labor Movements* (Englewood Cliffs, N.J.: Prentice-Hall, 1952), p. 362.

¹⁸ Experience in Greece appears to parallel that in Italy. See S. Agapitides, "Wage Policy in Greece," *International Labour Review*, vol. 61 (March, 1950), p. 264. In Denmark, the low wage differential that existed in 1944 checked any further compression during the inflation from 1944 to 1949. One trade unionist noted that "in many unions there was a general belief that a limit had been reached, at least temporarily, in an equitarian wage policy—the higher-paid workers refused to relinquish their claims any longer." Cited in Walter Galenson, *The Danish System of Labor Relations* (Cambridge, Mass.: Harvard University Press, 1952), p. 180. And in Great Britain there has been a wave of recent strikes over failure to allow special increases to skilled workers whose relative wage position has declined.

¹⁹ For the trend of wage-rate-earnings deviation in Italy, see the *Rassegna di Statistiche del Lavoro*, (November-December, 1953), p. 652. For the deviation by skill in 1950, see unpublished study by Pierfrancesco Bandettini for the Centro per la statistica aziendale Firenze, "Costo medio orario della mano d'opera in talune industrie italiane nel 1950." For France, see A. Chabert, *Les salaires dans l'industrie française* (Paris: École Pratique des Hautes Études, Centre d'Études Économiques, 6ème Section), mimeographed, pp. 74-77.

workers, many of whom are still in short supply.²⁰ One might say that administrative latitude at these lower levels has served as a corrective to leveling tendencies that were considered excessive, whether for market or morale reasons, in many plants, industries, and regions. In the United States, where wage determination is more decentralized, this problem never arose in such acute form.

Industry and Sector Differentials

The interindustry hierarchy of wages is surprisingly similar in many countries. The United Nations Economic Commission for Europe, for example, noted that "In general, industries including heavy or skilled labor are at the top of the scale and with light industries typically at the bottom."²¹ One might add a number of further observations. First, the distinction between light and heavy labor often means a distinction between a primarily female and a primarily male labor force. In such cases, certain traditional sex wage differentials reinforce the interindustry wage differential. Second, highly competitive industries are often at the lower end of the wage scale (textiles, clothing) while many less competitive industries occupy high positions (steel, aircraft). Third, the wage scale in still other industries, such as printing, can be explained only by certain favorable supply conditions that were in existence many years ago and that have been guarded and supported by early and strong trade unionism.

The measurement of interindustry wage differentials poses some difficult problems. The use of industry-wide average hourly earnings allows the sex and skill composition of the industry labor force to be reflected in the analysis. For certain purposes such a "distortion" is undesirable. Fortunately the importance of this factor is mitigated by two other facts: first, there is a tendency for high skilled wages to be associated with high unskilled wages,²² so that the interindustry average is not likely to be seriously distorted by averaging relatively high unskilled wages with relatively low skilled wages or vice versa; second, with the increasing practice of promoting from within and hiring at the bottom of the wage scale, many workers are interested less in the wage rates of specific jobs than in the general earnings picture of the industry. For this type of job hunting the industry-wide average earnings are undoubtedly the significant figures. On the other hand, to the extent that workers move in response to the wage rates of specific jobs, the industry-wide average

²⁰ This is especially true for Italy, where a shortage of skilled workers goes hand in hand with extensive unemployment.

²¹ "Changes in the Structure of Wages in European Countries," p. 54.

²² Sumner H. Slichter, "Notes on the Structure of Wages," *The Review of Economics and Statistics*, vol. 32 (February, 1950), pp. 83-84; Stanley Lebergott, "Wage Structures," *Review of Economic Statistics*, vol. 29 (November, 1947), p. 278.

is misleading, since different staffing patterns and differences in the range of skill differentials in various industries distort the comparison. Thus both methods of measurement are useful. Unfortunately figures for industry-wide earnings are more often available than those for specific occupations and skill classes.

The similarity among various countries in the ordinal ranking of wages by industry is confirmed in the three-country study. Rank correlations of wages in 1950-1951 are in excess of 0.80, and one suspects that finer industrial classifications would increase the correlation. Thus differences in pattern of industrialization, in wage-determination systems, and in income levels have had little effect upon the wage ranking. The factors that determine this ranking—including, as noted by Ross and Dunlop, market organization, technology, skill complex, and union organization—are satisfactory explanatory factors for rather diverse countries.

In general, interindustry wage differentials narrowed between 1938 and 1952. Major economic forces affecting all industries (which Ross has suggested are dominant in most periods) were particularly emphatic in this one. Cost-of-living increases were important in all three countries and tended to reinforce the centrifugal tendencies in wage determination. In some of these countries government wage and price policies and full employment had the same result.

Because of the scarcity and coarseness of the data available, the pattern of change in interindustry wage differentials within the period is difficult to follow. In Italy, these differentials narrowed sharply during the war and inflation and then widened after the Einaudi financial reforms of late 1947. In part, this opening up of the wage structure reflected the extremity of the previous period of compression; in part, it represented the reemergence of individual industry factors after the stabilization of the price level. In the United States, the relative compression of the interindustry wage structure took place during wartime full employment. The interindustry wage structure showed considerable stability during the postwar inflation, with some lagging on the part of depressed industries. Lack of data prevents any prewar-postwar comparisons for France. In the postwar period, however, the range of interindustry wage differentials narrowed. Thus, both inflation and full employment have been responsible for compression of interindustry wage structures, with the latter being perhaps slightly more important.

Among broader sectors of the economy agricultural wages have risen relative to industrial wages. Agricultural wage gains are closely related to the employment situation in industry. In Italy, where unemployment remains high and the movement out of agriculture is relatively small, these gains have been slight. In France and the United States, on the other hand, substantial agricultural wage gains are associated with re-

atively full employment and a decline of 30 to 35 per cent in the agricultural labor force.²³ The closeness of this relationship is strikingly illustrated in the United States, where large gains were made in the full-employment period through the end of the war. In the looser labor markets of the postwar period, wage relationships were stabilized, and there may even have been a slight relative loss for agriculture.

Mining wages also tended to exceed those in manufacturing, though not all branches of the mining industry held to this pattern. The trend was stronger in France and Italy, where there were considerable increases in mining employment, than in the United States.

Recent discussions of wage rigidity, particularly in regard to France,²⁴ are pertinent to the analysis of interindustry differentials. According to this view, wage relationships among various industries may become rigid, no longer reacting individually to changes in demand (as reflected in prices, profits, and employment) of the separate industries. If this is accompanied by a similar rigidity in product-market prices, the whole allocating function of the price mechanism breaks down. Instead of specific price rises resulting from excess demand calling forth increased output in that industry, there is a general rise in product and factor prices that leaves previous factor relationships unchanged. The activity of the price mechanism is frustrated, and the sensitivity of the price system in general to changes anywhere within it produces a highly inflationary economy.

Within the wage structure itself, such fears of rigidity do not appear to be well founded. Even in Italy, where contractual wages may move together rather closely because of the highly centralized bargaining system, earnings do not. And for all three countries, a comparison of metallurgical and textile wages in the postwar period shows a marked divergence in the pattern of change, the differential between the two industries widening.²⁵ This divergence is more marked in the United

²³ The ratio of agricultural to industrial wage increases (using indexes on a 1938 base) is between 140 and 150 in both countries.

²⁴ François Perroux, "The Obliteration of the Economic Function of Wages and Structural Inflation," Round Table on Wage Determination, Sept. 4-14, 1954 (Paris International Economic Association, 1954), mimeographed, and *Economic Survey of Europe since the War*, pp. 78-79. On the other hand, various French interviewees questioned the validity of the rigidity hypothesis maintained in the publications just cited. The author questioned various informed Italian wage analysts about the applicability of this same problem to the Italian wage structure and economy. In numerous cases their opinion was that differential industry economic conditions had little effect on wage changes by industry. On the contrary they felt that historical relationships were maintained, thus supporting, for Italy, the statements by Perroux. In neither country is there general agreement on this problem.

²⁵ For example, in Italy, earnings in metallurgy are well above contractual minima while, at the same time, labor inspectors are finding cases of textile wages below the

States and Italy than in France. The French experience partly reflects the small interindustry differential in that country. And relatively low interindustry wage differentials in turn reflect the small skill differentials.²⁶

Regional Wage Differentials

Wage differences among regions also declined between 1938 and 1952. In France the decline was severe, the Paris-Provincial wage differential falling from 72 per cent in 1938 to 22 per cent in 1952. This reduction went far beyond the 1929 level of 59 per cent, regional differentials having widened in the 1930's. In Italy, the North-South differential declined from 50 per cent in 1938 to 33 per cent in 1952. Unfortunately, good comparative data are not available for earlier years. In both countries the regional wage patterns of individual industries, formerly quite disparate, became more uniform, particularly in the postwar period.

Declining regional wage differentials appeared to stabilize in the United States after the 1945 to 1947 period. The Southeast region showed the greatest relative gain, and two other regions showed consistent, though lesser, changes for most industries. The wage level of the border states came closer to the New England level, and the Great Lakes region increased its superiority over New England in this respect. In the United States, unlike France and Italy, regional wage patterns of individual industries did not tend to become more alike. Some industries, such as basic steel, virtually eliminated regional differentials while others, such as construction, showed a widening of the Southeast-New England differential.²⁷ The narrowing that did take place during this period may be considered partly as a readjustment to the widening of regional differentials in the 1930's.

minima and even some tendencies to revert to home work. Similarly Bandettini's study, cited previously, shows that for construction workers of all skills in Southern Italy actual costs were below legal costs, whereas there is no skill class in the mechanical, naval construction, and rubber industries where actual costs are not above legal costs for their respective skills and industries.

²⁶ "If the skill differential is 100%, it is possible to accept that 'the market,' changing product demand, company profitability or mere inertia and tradition create or uphold a 50% differential between two labor groups belonging to similar skill classes. But if the differential between skilled and unskilled workers is 50 or 25%, such market-induced differences become intolerable." Gosta Rehn, "Unionism and the Wage Structure," Round Table on Wage Determination, Sept 4-14, 1954 (Paris International Economic Association, 1954), mimeographed, p 19.

²⁷ The regional wage patterns of specific industries tend to be more unique in the United States than in France or Italy. Therefore, broad averages are somewhat misleading. See, for example, Richard A. Lester, "Trends in Southern Wage Differentials since 1890," *The Southern Economic Journal*, vol 11 (April, 1945), pp 317-344. A more comprehensive review is impossible within the confines of this chapter.

The evidence indicates sensitivity of regional wage differentials to cyclical changes in employment. Tightening labor markets force low-wage areas to raise their relative wage position in order to maintain their labor force in the face of effective job opportunities elsewhere. And the close connection between industry and agriculture in many of these low-wage areas, in terms both of attracting agriculture-oriented industries (such as food processing and fertilizer) and of recruiting industrial labor from agricultural labor reserves, makes the previous analysis of the behavior of agricultural wages applicable here as well. Thus full employment, rather than inflation, is the main factor in the cyclical decline of regional wage differentials. And, in fact, regional wage differentials appear considerably less susceptible to inflationary narrowing than do inter-industry differentials, just as the latter seem less sensitive to inflation than do skill differentials. These different responses can be explained partly by the equity aspects of wage increases during inflation. Emphasis is placed on the needs and living standards of the lower-paid worker and the desirability of maintaining his real income, if necessary at the expense of the higher-paid worker. Such equity decisions arise most easily where there is a community of interest among the high- and low-income workers being compared. And these equity decisions can be implemented most easily where the wage-determination unit encompasses both income groups. At the plant level, comparisons between high- and low-wage workers are common and the administrative difficulties of implementing inequity adjustments are least. Comparisons become less common between high- and low-wage industries, though they are still important, and the administrative machinery for implementation is much less efficient except in those industries in which highly disciplined industry-wide bargaining exists. Finally, between regions, the frequency of comparisons and the adequacy of administrative machinery are weakest of all. In other words, the number of factors that are considered by workers, unions, employers, and governments to be pertinent to wage considerations and the ease with which recognized inequities may be corrected vary at different levels of wage determination. Thus the greater emphasis on the correction of inflation-generated inequities in the skill wage structure, rather than in the industrial or regional wage structures, partly reflects the fact that skill inequities are pertinent at all levels of wage determination, that they can be corrected in the lowest and most homogeneous administrative unit, and that they are the most obvious to the employee in his everyday work relationships.

Two important qualifications to this generalization should be noted in the three-country study. First, an extreme inflation, especially when reinforced by a highly centralized wage-determination system, may narrow industry and regional wage differences even when there is unemploy-

ment. In Italy, with prices at fifty-five times their 1938 level and a national escalator clause in effect, cost-of-living increases ran roughshod over the wage structure, compressing differentials of all kinds Second, there are limits, at least in the short run, to this compression process In the French full-employment economy, government attempts to reduce provincial wage differentials to about 13 per cent²⁸ in the postwar period failed Already drastically compressed, regional wage differentials remained above 20 per cent.

Components of Wages

For some purposes the variety of items that comprise labor cost and labor income may be lumped together Wage-structure analysis requires a more detailed breakdown (1) the form that wage increases take (wages, family allowances, pensions) affects the distribution of income among individual workers, (2) from the viewpoint of allocation of the labor supply, worker attitudes toward various types of income differ, (3) the size of nonwage labor payments may have a decisive effect upon the openness of the wage hierarchy, and (4) different items of labor income tend to have different contours and thus to come under different wage-determination authorities Therefore, substantial changes in the form of labor income affect the distribution of income, its economic significance, the height of wage differentials, and the trends toward centralization or decentralization in wage determination

The number of components of labor compensation tends to increase These additional components may be grouped conveniently into two types The first are additions to the direct wage component incentive earnings, cost-of-living payments, merit payments, seniority payments, bonuses, etc., that are added to the basic time rates The second are additions to nonwage labor income through new fringe benefits or social security programs It is worthwhile to divide the latter group further into components involving normal or periodic payments (such as monthly family allowances, annual vacations, and holidays) and those involving special or contingency payments (such as accident, sickness, death, and retirement benefit).

The following table shows estimates of changes in the components of labor cost from 1938 to 1952 The relative importance of nonwage labor costs almost tripled in France and the United States and quadrupled in Italy. At both dates, the percentage of nonwage labor costs in France and Italy greatly exceeded the percentage for the United States

Why do collective bargaining and government legislation increasingly specify the uses of labor income? Both the legislature and the parties to collective bargaining pursue welfare aims that they consider desirable.

²⁸ The difference between the highest and lowest wage zones

These may involve an extension of leisure time (through holidays, vacations, and reduced working hours), or protection against expensive emergencies (sickness and accident insurance, paid sick-leave plans, and death benefits), or provision for old age in the form of pensions, or provision for the extra income needs of families through direct supplementary payments or tax allowances. The specification of these items insures against the failure of the individual worker to make such provisions. In addition, it provides benefits in amounts that the individual could not secure for the same cost. Other fringe benefits, such as overtime payments, reporting pay, and wage scales for apprentices serve a regulatory function. They provide a measure of control over the employment relationship and are only incidentally concerned with increasing worker income.

**COMPONENTS OF LABOR COST AS A PERCENTAGE OF LABOR COST,
1938 AND 1952, IN ITALY, FRANCE, AND THE UNITED STATES**

Costs Accrued for	Italy		France		United States†	
	1938	1952	1938	1952	1938‡	1951¶
Direct wages	86 4	60 0	86 9	70 2	94 3	86 0
Nonwage payments*	13 6	40 0	13 1	29 8	5 7	14 0
Periodic payments*	4 7	11 2	4 1	6 6	1 9	5 9
Contingency payments	8 9	28 8	9 0	23 2	3 8	8 1
Nonwage as a percentage of direct wage costs	16 0	67 0	15 0	42 0	6 0	16 0

* Periodic payments are vacations, holidays, and fixed bonuses. Contingency payments are various types of social-insurance benefits, such as pensions, workmen's compensation, life insurance, and maternity benefits.

† Figures for the United States are probably overestimated as compared to those for France and Italy. The United States data include costs that are applicable to only a few plants in the survey as well as more general costs, whereas the French and Italian data are restricted to costs applicable to industry in general.

‡ United States data for 1938 are rough estimates made by the author.

¶ Note that these statistics are compiled from a rather limited sample of companies and may not be representative of American industry in general.

SOURCE for Italy, *Rassegna di Statistiche del Lavoro*, (September–October, 1953), pp. 562–564, for France, *Bulletin Mensuel de Statistique*, Supplement, new series (April–June, 1952), p. 66, for the United States, 1938 statistics were derived from numerous articles on fringe benefits, mostly in the *Monthly Labor Review*, and 1951 statistics from *Fringe Benefits, 1951 The Nonwage Labor Costs of Doing Business* (Chamber of Commerce of the United States, 1952), p. 21.

Yet this does not explain important differences among countries in the share of income devoted to nonwage payments, nor does it explain the growth of these payments during this particular period. In France and Italy, where inflationary problems were more serious than in the United States, nonwage items of income (particularly family allowances) provided a means of meeting the vital income needs of families, the sick,

and the aged without the full inflationary consequences of a wage increase to all workers or even to all low-paid workers As will later be developed more fully, this was reinforced by the actual reduction in per capita real income in these countries at the end of the war

In the United States the government's anti-inflation program also served to spur fringe-benefit growth However, the problem differed in kind from that of the other two countries The income shift did not result from a loss in the standard of living (on the contrary, living standards were rising) but from the need for a safety valve to preserve the general stabilization program And in the recession of the postwar period, when the likelihood of getting wage increases was slight, it was possible for unions to bargain for pension programs Thus these nonwage payments provide an alternative to wage increases when, for one reason or another, such increases are not propitious, as distinguished from the tendency to nonwage payments that arises from long-run welfare goals or from the necessity for providing for groups with special income needs in an inflation or an emergency

Differences in the ratio of nonwage to wage payments among countries may be ascribed to ideological positions, to the system of wage determination in effect, or to the underlying economic factors in the various economies It is possible that countries differ in the degree to which government control of the use and distribution of labor income is considered desirable and that this partly explains these ratios Undoubtedly, traditional government aid to or control of industry, the precepts of German social democracy, and the emphasis of Catholic doctrine on the family, to name but a few, have affected the trend in the distribution of labor income

It is also possible that centralized wage determination may increase the likelihood that nonwage payments (particularly broad social security benefits of a substantial nature) will receive consideration It would appear that economic reasons are at least as good an explanatory factor as either of the others The three countries studied have marked differences in level of per capita national income Thus per capita income in France was about one-half and in Italy about one-third of that in the United States in 1949²⁹ Other measures, discussed more fully below indicate similar large differences in real income Given a culturally determined minimum standard of living, the current size of income per capita determines the sufficiency or insufficiency of such current income

²⁹ *National and per Capita Incomes, Seventy Countries, 1949*, United Nations, Statistical Papers, ser E, no 1 (New York, 1950) While these figures illustrate the large differences among the three countries, they are not exact Not only are there differences among the national income concepts used, but also the exchange rates by which French and Italian incomes are translated into American dollars may not represent accurately the internal buying power of the franc and the lira

to provide the minimum standard for all workers plus the variety of differentials above the minimum that are normally found in any economy

In an economy with a high per capita income, there is greater likelihood that a direct wage high enough to meet these various needs can be paid. In an economy with low income levels, the provision of minimum standards for everybody may be impossible, even after compressing above-minimum differentials, without pooling a large share of labor income specifically for those workers with special requirements (particularly family expenses). Thus nonwage items, especially of a social-insurance nature, allow higher minimum standards than would be possible in an economy with a larger ratio of direct wage payments.³⁰ This is true of a high- or low-income economy, but the problem is more urgent for the latter. And in a high-income economy the freedom of the individual to choose his own pattern of expenditures may balance the costs of a high-wage policy.

Economic and Institutional Setting

To appraise the wage structure changes previously described, one must trace the interactions of these changes with wage-determination institutions, basic economic movements and resource limitations, and general wage and price changes. The ensuing discussion provides a description of these other factors and then attempts to integrate them into an interpretation of wage-structure changes.

Wage determination in the three countries follows markedly different patterns. Italy has a long history of centralized wage determination. During the fascist period, this centralization took the form of government control of wage decisions. In the postwar period, there was a return to relatively free collective bargaining. But this bargaining structure took on the highly centralized characteristics of the earlier period. The powerful employers association (*Confederazione generale dell'industria italiana*), which had maintained its staff and continuity throughout the fascist period, bargained over the principal issues with a relatively united labor movement (the three main branches of the prefascist labor movement had united in the *Confederazione generale italiana del lavoro* (CGIL) in the early postwar years). Even after the breakup of the united labor front,³¹ the employers association continued to bargain on most of the

³⁰ It should be noted that the minimum standard is a culturally determined minimum, so that existing ideologies would affect the standard accepted. Such ideologies would also affect the wage-determination system. Therefore, the three factors noted above are closely interrelated, and no claim is made here as to their independence. The argument is one of emphasis only.

³¹ In 1948 the Catholic workers walked out and formed their own organization (what is now the *Confederazione italiana sindacati lavoratori*—CISL) and in 1949 the Republican rightwing socialists walked out (forming the *Federazione italiana del*

vital issues of the day with the three major union confederations³² Changes in the general wage level; the establishment of the sliding-scale arrangement for cost-of-living increases, changes in the important fringe benefits, such as holidays, vacations, the Christmas bonus, and the family allowances, the establishment of the formal regional, interindustry, and skill hierarchies were all included in these interindustry, nationwide negotiations National negotiations were followed by industry-wide negotiations that adapted the confederal contract to the particular industry needs but could not change the principles of the basic contract or violate the minima it established

In France, government control of wages is of paramount importance Throughout most of the period, government control operated explicitly through detailed decrees And even after the collective-bargaining law of 1950, which revealed a great disparity in the relative power of employers and unions,³³ government economic decisions were the decisive factor in wage determination Government legislation in regard to family allowances and other social-insurance benefits, government reorganization of the skill and regional wage hierarchies, wage determination in government-owned industry, and, most important, government changes in the minimum wage basically determined the form and size of wage-level and wage-structure changes Collective bargaining in France did not become centralized to the extent that it did in Italy, though certain leadership patterns emerged Tests of power usually took place in the political arena at a national level, for the various interest groups (agricultural, industrial, commercial, and labor) put much of their efforts into influencing government policy and legislation in such a way as to increase their own share of the national product.

Finally, in the United States, wage determination is relatively decentralized With the exception of minimum-wage determinations under various Federal and state statutes and the income effects of government social-insurance programs and tax policies, wage and labor income determination is under private rather than government control And this private system of wage determination is not comparable to the highly

lavoro, part of which joined with the Catholic CISL, the remainder joining with another group of socialists who left the CGIL somewhat later to form the Unione italiana dei lavoratori) See John Clarke Adams, "Italy," in Walter Galenson (ed.), *Comparative Labor Movements* (Englewood Cliffs, N J Prentice-Hall, 1952), pp 440-455

³² The first break in the pattern was in 1954, when an important contract was signed without the participation of the largest union confederation, the CGIL

³³ For a description of the postwar fractionalization of the French labor movement and the collective bargaining that took place between the employers and unions, see Lorwin, *The French Labor Movement*, chaps 7, 8, 11, and 12

centralized collective-bargaining systems that exist, for example, in Italy, certain Scandinavian countries, and in the Netherlands. There are almost no horizontal organizations (national, state, or local confederations covering a large number of industries) with wage-determination powers. Among the vertical organizations, a small number of industries have national contracts, and a larger, but still far from dominant, number have regional contracts.³⁴ Local contracts covering numerous firms within an industry are common. In addition, a certain amount of important informal centralization has taken place through the existence of wage leaders who set patterns followed by other firms in the industry or by firms in other industries. This was especially true immediately after the war. As compared to France or Italy, however, the centralization is slight.

The particular period studied is peculiar in that it involved two fairly long periods of government wage stabilization (1942 to 1946 and 1951 to 1953). However, the stabilization differed radically from government wage controls of the Italian fascist or the French type. It did not attempt to mold a new and more "desirable" wage structure.³⁵ On the contrary, consistent with the anti-inflationary, industrial peace, and manpower needs of the defense period (and planning was essentially limited to this temporary need), the wage boards tried to maintain existing wage practices. The only exception, perhaps, was an emphasis on rationalization of intraplant wage structures, but this merely introduced more logical methods of setting plant wages and included no attempt to change the general size of skill differentials. Government activity also had a permanent effect in awakening interest in wage comparison and supplementing the data on wages being paid.

Underlying Economic Factors

In the same way that wage-determination methods may influence the resulting wage structure, so also may the economic factors that determine the range of discretion within which wage policy must operate. A nation's economic goals are limited by the extent of its current resources, plus gifts and loans from other countries, and the speed with which these resources can be increased or their use changed. Much of the wage history of this period can be written in terms of the levels and changes in levels of national income, destruction and reconstruction of plant and equipment, investment policies, and price changes. These factors are briefly surveyed below.

³⁴ In a more detailed discussion of multiemployer bargaining, see Taylor's discussion in chapter 4, particularly pp. 109-111.

³⁵ Increases given to compensate workers with substandard wages or to correct inequities were designed mainly to deal with the "straýs" in the economy and not to establish permanently a new set of wage relationships.

Real per capita national product³⁶ rose 20 per cent in France and 12 percent in Italy from 1938 to 1952, the Italian figure being approximately the average rise for Western European countries as a whole. Slight additional increases were made through favorable changes in the terms of trade. In the United States, the rise was 65 to 70 per cent, with slight losses from unfavorable developments in the terms of trade.³⁷ Since per capita income in the United States exceeded that of France in 1938, and France exceeded Italy in this respect, the changes during the period increased the disparity among the three countries. It should also be noted that United States national product and income rose continuously, whereas in the period from 1944 to 1946 Italian and French product and income suffered serious declines from previous levels.

The distribution of resources in the three countries also differs.³⁸

DISTRIBUTION OF TOTAL RESOURCES, 1951

Country	Private Consumption, %	Public Consumption, %	Gross Domestic Capital Formation (Including Change in Stocks), %
France	65	13	22
Italy	69	11	20
United States	63	17	20

The United States devoted a larger share of its income to public consumption (mostly because of defense expenditures), Italy to private consumption, and France to domestic capital formation. As compared to 1938, all three countries increased their investment percentages, and in Italy there were special gains for private consumption at the expense of very heavy prewar public expenditures.³⁹

The purchasing power of hourly earnings in terms of food measures one aspect of relative purchasing power. In 1938, Italian hourly earnings purchased about one-fourth and French hourly earnings about two-thirds of the food that could be purchased with an hour's earnings in the United States. By 1950, using earnings plus family allowances, Italian workers could purchase a little more than one-fourth and French workers only two-fifths of what American workers could purchase. Thus Italian

³⁶ Real per capita national product is here defined as gross national product plus import surpluses (or minus import deficits), adjusted for population and price changes.

³⁷ *Europe, the Way Ahead*, Fourth Annual Report of the Organization for European Economic Cooperation (Paris, December, 1952), pp. 114-117.

³⁸ *Ibid.*, pp. 118-120. Public consumption includes defense expenditures.

³⁹ For the historical material on Italy, see *ibid.*, p. 118, for France, see *Economic Survey of Europe since the War*, p. 56, and for the United States, see *Survey of Current Business*, vol. 33 (July, 1953), p. 10.

workers, though earning less than their French counterpart, maintained their relative position better.⁴⁰

One further factor is the relative rise in prices in the three countries from 1938 to 1952. Roughly, 1952 prices were fifty-five times higher in Italy, twenty-three times higher in France, and only 90 per cent higher in the United States. At the same time, real hourly earnings rose by about 33 per cent in Italy (40 per cent including family allowances), 38 per cent in the United States, and fell by approximately 30 per cent in France (10 per cent including family allowances)

An Interpretation of Wage-structure Changes in the Three Countries

The speed with which industrial workers in Italy in the postwar period regained and then surpassed their 1938 real-wage levels, while French workers were still lagging in 1952, appears paradoxical. French industry reached prewar production levels earlier than Italian industry. French agriculture, while a serious problem in the postwar period, also reached prewar levels earlier than Italian agriculture, and maintained these levels more securely. The French labor force was fairly fully employed, while in Italy there was a severe problem of structural unemployment that, even in 1955, does not seem likely to be solved in the near future. Finally, Italy suffered a far more severe inflation than did France.

Part of the explanation for these differences may lie in the distribution of national product. In the French economy, greater percentages of income were devoted to investment and public consumption (the latter including heavy expenses connected with the war in Indo-China). These policies inevitably reduced the share of national product available for private consumption and thus prevented a more liberal wage policy. On the Italian side, the heavy prewar public expenditures provided a cushion in the postwar period, when they were shifted to private expenditures.

Yet these factors can scarcely explain a pattern of wage-level changes in direct opposition to the underlying economic circumstances. It is hard to avoid concluding that the wage-determination systems and the power relationships in the two countries are important explanatory factors.

Labor unions in Italy emerged from the war in a strong position.⁴¹ In

⁴⁰ Note that this is contrary to the findings of the per capita national product study. This is because the national product average for Italy is deflated by the great unemployment while food-purchasing figures are for employed workers only. Also, these figures may not be representative of total purchasing-power changes, since food was a serious deficit in both countries after the war. [Statistics adapted from Irving B. Kravis, "Work Time Required to Buy Food: A Comparison of the Purchasing Power of an Hour's Earnings in the United States and 18 Other Countries," *Monthly Labor Review* (November, 1949), pp. 143, 146.]

⁴¹ For a description of this period in Italy, see Maurice F. Neufeld, *Labor Unions and National Politics in Italian Industrial Plants*, Cornell International Industrial and

the two-year period following the war, when prices were rising very rapidly, Italian unions bargained a cost-of-living escalator covering a large share of Italian industry. This escalator maintained postwar real wages throughout the worst of the wage-price spiral and allowed further gains when national income regained prewar levels. Bargaining on the part of employers, for whatever reason, was responsible and rational. The parties hammered out, not only the sliding-scale arrangement, but also an elaborate series of agreements that helped to establish a more rational wage structure.

French labor also emerged from the war with enhanced power and prestige. In the early years after the war, when labor (including the Communist groups) participated fully in the government, the emphasis was on reconstruction and self-sacrifice in the form of deferring wage demands. When the split came (both in the movement of Communist groups out of the government in May, 1947, and the breaking up of the Confédération Générale du Travail, CGT, in December, 1947) emphasis once more shifted to real-wage gains, though the CGT led a number of strikes of an obviously political nature. But by this time the effective power of labor unions had dissolved in the face of the rebirth of industrial, commercial, agricultural, and other interests. A United Nations survey summarizes the situation:⁴²

But the wage-earnings class is by common agreement held outside effective political power, and wage adjustments tend to be delayed until they are unavoidable. By the time wages are raised, the increase required is likely to be substantial, and it is regarded as the signal for a fresh round of price increases.

In view of this description of factors behind wage-level changes, one might reasonably interpret the wage-structure changes of the period in the following manner. The temporary decrease in real per capita national income after the war forced a decline in living standards in both countries. As a matter of equity, this burden fell more heavily on the higher-income than the lower-income groups, and special advantages were conferred on those with higher-income needs (the sick, the family with many dependents, etc.). These shifts took place, however, *within* the wage-earning class. In France, the pressure for such adjustments was probably increased by a change in the share distribution of income that

Labor Relations Reports, no. 1 (Ithaca, N.Y.: Cornell University Press, 1954), pp. 17-30. Employer fears of more radical action after worker occupation of important industrial plants is particularly noteworthy.

⁴² *Economic Survey of Europe since the War*, p. 79. Obviously the above description is oversimplified. Among other things, the chronic tendency of the French economy toward inflation since 1914 and the indecisiveness of governmental price-control policy for political reasons (as compared with the effective check on price inflation in Italy in 1947) are important factors in the wage decisions of the period.

was unfavorable to wage earners.⁴³ In Italy, shares appear to be roughly unchanged.⁴⁴ Still further pressure was put on the French wage structure by the increased percentages of national product in the investment and public sectors and by the lack of an effective voice for labor in wage-price policy. But the French wage structure even before the war, with the possible exception of regional wage differentials, was already far more compressed than those of the United States and Italy, mainly because of the many years of inflation from 1914 to 1938.⁴⁵ Although the wage structure narrowed still further under these pressures (particularly in the case of regional wage differentials), a limit was soon reached. The lack of an open wage structure to help absorb the multiple pressures of the period undoubtedly contributed to the failure of the French wage level to regain its prewar position.

In Italy, the maintenance of labor's share of national income, an effective voice in wage policy through a highly centralized collective bargaining system, and a very open wage structure—drastic compression of which during the inflation helped to cushion the fall in real-wage levels—all contributed to the maintenance of postwar real-wage levels and the speedy regaining of prewar real-wage levels. And the government's willingness to take effective measures to control price rises (mostly through monetary action), while avoiding interference with the private collective-bargaining system, allowed the development of rational, carefully planned, and acceptable wage-structure changes in the later postwar period.⁴⁶

As contrasted to Italy and France, real per capita income rose steadily in the United States and was sufficient to finance both an increased share of national income for investment purposes and a substantial rise in real earnings per hour. Though no critical need to adjust the wage structure to declining real income existed, considerable compression took place under the force of equities associated with inflation (especially in regard to occupational wage differentials) and the market pressure of a full-

⁴³ This is a controversial subject because of the paucity of data and because adjustments must be made for the increase in the labor force and extension of the work week between 1938 and 1952. See Lorwin, *The French Labor Movement*, pp. 227–228, and Jean Romeuf, "Pouvoir d'achat et coût de la vie, 1948–1951," *L'Observation Économique*, Supplement (December, 1951), p. 46.

⁴⁴ See *Introduzione ai Problemi del Lavoro I I Termini economici* (Milano: Istituto Sociale Ambrosiano, 1952), pp. 365–369.

⁴⁵ See "La France et l'inflation," *Études et Conjoncture Économie française* (May–June, 1951).

⁴⁶ Unwilling to take effective anti-inflationary measures, the French government was also unwilling to allow wage increases to take place along with price rises. Because of a large civil service and extensive government ownership in industry, every wage rise posed a budgetary problem and made the government delay. In Italy, where there is also extensive government ownership of industry, the government left control of wage policies in these nationalized industries in the hands of the Italian employers' association.

employment economy (especially in regard to regional and interindustry wage differentials) And, of course, certain secular trends in the narrowing of wage differentials continued to operate Government and union policies facilitated the trends of this period but do not appear to have been dominant factors

COMPARATIVE PATTERNS: CONCLUSIONS

Detailed comparative data on wage structures is still so sparse that only very tentative conclusions may be made. The following are generalizations suggested by the preceding analysis

1 Despite differences in resources, wage-determination methods, price-level changes, and other economic conditions, there emerges a fairly common pattern of reaction to certain economic changes In the short run, inflation seems to be the main leveling force of the wage structure, particularly for occupational wage differentials The tendency for inflation to affect occupational differentials may be explained partly by variations in the number of factors which the parties conceive as pertinent in wage considerations Because of a closer community of interest at the plant level and a decision-making unit that encompasses both the high- and low-income workers concerned, the inequities that are involved in inflation are more likely to be apparent and more capable of amelioration in the context of occupational wage relationships than of interindustry relationships The process of comparison and the administrative mechanism for implementing these equity increases are weaker yet in the case of regional wage relationships

Full employment has an important cyclical impact on the leveling of the regional and interindustry wage structures In addition, there are secular forces, such as changes in the level of education, mechanization of unskilled workers, dilution of skilled occupations, and industrialization of lower-wage regions, that tend to level the wage structure As occupational differentials decline, the existence of large interindustry (and to a lesser extent, geographical) wage differentials becomes less tolerable.

2 A satisfactory explanation of wage structure changes requires knowledge of the resource limitations of the specific economies involved Ascribing wage-structure changes to inflation or full employment is only a first approximation and does not account for important factors of a highly individual nature In regard to differences in income levels, one may hazard the following generalization because of comparisons with more advanced countries, nations with relatively limited resources are likely to set minimum standards (in relation to their resources) that require a large amount of labor income to be channeled into specific funds The basic criterion for receiving payments from these funds is the existence of a special income need (for dependents, sickness, accidents, old

age, etc.) The existence of a large percentage of nonwage labor income, in turn, restricts the possibilities for differentiating the direct wage structure.

3. The interrelationship between wage-level and wage-structure changes, particularly in time of crisis, deserves further study. The manipulation of the wage structure may allow a less drastic wage-level adjustment and, conversely, the failure to adjust the wage level may, under certain circumstances, impose severe strains upon the wage structure. It would appear that more explicit recognition of these relationships would be desirable in the formulation of wage policy.

4. The orderliness of a formal wage structure does not necessarily indicate the existence of a well-ordered wage structure in practice. Since the formal ordering of wage relationships for various firms, areas, and industries is an averaging process, the broader the scope of formal wage determination the more likely are deviations from it.⁴⁷ Numerous ways of escaping such formal arrangements exist, such as payments above or below contractual rates, loose or tight work loads, special fringe-benefit allowances, shifts to areas or industries outside the agreement, changes to minor or female labor, and bonus arrangements. When pressure for these arrangements becomes extreme, such a wage structure may become more chaotic than one that is less well ordered in a formal sense. Not only are there problems of the haphazard growth of wage components unique in particular plants, but also the integration of cost-of-living and other special wage payments into basic wage rates becomes a highly complex and technical problem.⁴⁸ The very complexity of the problem leads to delays that further aggravate the situation.

5. The diversity behind formal wage structures emphasizes the im-

⁴⁷ Theoretically, of course, a formal arrangement could be completely flexible, allowing for the specific needs of each individual plant. In practice, the goal is to achieve the maximum amount of uniformity consistent with the need to gain the acceptance of the parties involved.

⁴⁸ The percentages applied to base rates for the computation of incentive and other payments are raised as the basic rate becomes a smaller part of the total wage, thus partially maintaining their proportional weight in the total wage. Introduction of cost-of-living and other wage payments into the basic rate requires a reduction of these percentages. It is difficult to find a satisfactory basis for averaging the situations of individual plants in large bargaining units in order to achieve such integration. Either some workers (and employers) must take losses and other gains or else the whole structure must be leveled upward, often at considerable addition to labor costs. An interesting recent example of this problem is the Italian Conglobamento agreement of 1954. See Cesare Vannutelli, "Recent Wage Structure and Cost of Labour Changes in Italy," in *Review of Economic Conditions in Italy*, vol. 9 (March, 1955), pp. 129-142. A more comprehensive analysis of this agreement by the same author may be found in "L'accordo per il conglobamento ed il riassetto zonale delle retribuzioni dell'industria," *Rassegna di Statistiche del Lavoro* (May-August, 1954), pp. 272-281.

portance of administrative flexibility. Obviously there are rigidities also. A perfectly rigid wage structure in which the wage-differential patterns were maintained without consideration for firm, industry, or area labor-and product-market conditions would fail to fulfill the allocation functions of the wage mechanism. Fears of this rigidity appear to be exaggerated. First, labor-market studies have shown that the wage-mobility relationship is complex, including many other factors that may be more important at a particular time than the wage differential. Second, the extent of rigidity appears to be much less than the exponents of this problem feared. Some uniformity is evident in the absolute size of wage changes⁴⁹ over recent years. This is an important phenomenon that has counterparts in other countries. But, as Ross has noted, this uniformity phenomenon is restricted to certain groups of industries. In addition, the use of national averages conceals considerable diversity at local levels, in both wage and nonwage labor payments. There is no evidence, to the author's knowledge, that points to serious manpower problems arising mainly from wage rigidities.⁵⁰ The foregoing analysis thus would lead one to minimize rigidities and to emphasize the large degree of administrative flexibility at the plant level, even under apparently very restrictive agreements and regulations.

In general, the methods of analyzing wages suggested in earlier chapters are applicable to international wage studies. There are striking likenesses in the basic cause of the structuring of the actual (as opposed to the formal) rate structures and in the factors (both cyclical and secular) that bring about important changes. Since wage-determination systems do appear to have some independent, though limited, effect upon wage structures, an element of uniqueness exists, as well, that must be studied for each country. The forces that impel the movement of labor income out of direct wage and into nonwage income payments must receive greater emphasis in international wage studies than in American studies. It is likely that an analysis of these forces will be even more important in understanding the wage problems of underdeveloped countries. Here the attempt to raise living standards quickly may well result in the setting of minimum standards that are higher in relation to the available national product than in already industrialized countries. And the limitations that this will impose upon direct wage payments will have important consequences for wage structure.

⁴⁹ See, for example, the table prepared by Ross in Chapter 7, p. 194.

⁵⁰ Problems of unrest among skilled workers arose because of the equal absolute wage increases given during the inflationary period. But these wage increases were not indicative of any long-run tendency to maintain rigid absolute wage differentials between skilled and unskilled workers. This seems clear from the numerous attempts to widen these differentials on an absolute basis in the postwar period, and in some cases on a relative basis as well.

Index

- Adams, John Clarke, 319n
AFL-CIO, 256
Agapitudes, S., 309n
Agreement, administration of, 99–101
 economic consequences of, 98–99
 effectuation of terms, 101–102
 motivations for, 102–106
 (See also Collective bargaining)
Agreement making, characteristics, 86–87
Agreement-making processes, types, 89–
 99
Amalgamated Clothing Workers Union,
 66, 70, 108
American Federation of Labor, wage
 policy, 54, 58, 175
American Motors, 133
Annual improvement provision, 58–59,
 199–200, 257
Aristotle, 47
Armour Company, 132
Ashton, T. S., 188n
Austria, wage policy in, 275
- Bakke, E. Wight, 134n
Bandettini, Pierfrancesco, 309n, 313n
Barron, S. L., 119n
Bergson, Abram, 307n
Berle, A. A., Jr., 34n, 38n, 49n
Bernstein, Irving, 190, 197, 198
Bers, Melvin K., 260n
Bethlehem Steel Company, 75
Beveridge, William H., 276
Big business, advertising, 41
 brand names, 41
 managers, 32–36
 pipeline feeders, 41
 status, 33, 38–39, 207–208
Bilateral monopoly 22–24, 30–31
Bittner, Van, 76
- Blake, Donald J., 260n
Boehm-Bawerk, Eugen von, 121n, 127n
Boulding, Kenneth E., 262, 263, 265n,
 296
Brannan Plan, 275
Bronfenbrenner, M., 268
Browne, G. W. G., 263n
Budd, Edward C., 281, 282n–284n
Building trades, wage scale, 65–66
Business cycles, effects of trade union
 activity on, 65
 and management decisions, 48, 218–219
 and trade union strength, 63–65
 and wage patterns, 257–258
 and wages, 242–243, 245, 249–251, 262,
 272–274, 282–287, 290
Butler, Samuel, 295
- Cannan, Edwin, 124
Capitalism, 44, 50, 262–263
Caplow, Theodore, 200n
Carey, Henry C., 264
Cartter, Allan M., 283, 292
Cassel, Gustav, 119n
Chabert, A., 309n
Chalmers, Hugh, 46
Chamberlain, Neil W., 24n
Chapman, J. F., 182n
Chevrolet Motor Company, 41
Chrysler Motor Company, 74, 76
CIO, 73, 175, 210
 wage policy, 58, 202
Clark, J. B., 4, 121, 263
Clark, J. M., 206
Classical wage theory (see Wage theory)
Clayton Act, 54
Clegg, H. A., 124n
Cole, J. J., 46
Collective bargaining, alternate choices
 in, 97–99

- Collective bargaining, development and nature of, 96–113, 125
effect on internal wage structures, 170–171
and governmental action, 125
impasse in, 103–104
in mass-production industries (*see* Mass-production industries)
methods of, 65–81
 national-pattern, 67–69
multiemployee, 109–111, 177, 302
national differences, 318–320
in new enterprises, 197–198
scope of, 61
and wage levels, 247–249
weaknesses, 106–107
(See also Agreement, Trade unions)
- Colm, Gerhard, 45*n*
- Combination laws, 118
- Comparisons of wages, and ability to pay, 190–192, 200
and cost of living, 190–191, 202
cross-industry, 198–199
national wage structures, 299–327
wage level versus movement, 178–181
- Competitive position, 40–41, 211–214, 310
- Competitive theory of wages, 16–20
 evolution of, 17–20
 pure competition, 25–27
(See also Marginal-productivity theory, Wage theory)
- Components of wages, 315–318
- Conrad, Alfred H., 283*n*
- Consumer interest, 83
- Contemporary wage theory, viii, 8–31, 117, 124–127
- Craft unions, bargaining patterns, 65–66, 92–93
 bargaining strength, 65–66
- Custom and wage patterns, 200–201, 204
- Customer needs in wage decisions, viii, 39–40, 45, 105, 207, 211
- Decision making**, administrative, 112–113, 176, 228, 310
 latitude in, viii, x, xi, 87–89, 111, 174, 176, 178, 189, 228, 230–231, 310
in wage determination, x, 45–50, 111–113, 127, 296
 customer needs in, 39–40, 45, 105, 207, 211
- Decision-making unit, x, 140, 176
- Deductive analysis, versus inductive, 3–8, 30
parallelism with employer attitude, 5
- Demand-and-supply analysis, 12, 17, 127, 139, 185–188, 263–264
(See also Wage theory)
- Denison, Edward F., 282*n*, 283*n*, 284*n*
- Dewhurst, J. Frederic, 45*n*
- Differentials, effects of, 225–235
 among industries, 310–313
interplant and intraplant, 79–81, 171–178, 203–205, 225–227, 229–235
local, 229–231
measurement of, 179–181, 225–226
North-South, 79, 175, 176, 203, 215, 219, 232–234
occupational, 227–228
regional, 232–235, 313–315
among sectors of the economy, 306, 310–313
sex, 304, 310
skill, 305, 307–310
in soft- and hard-goods industries, 192–194
(See also Inequities)
- Dobb, Maurice, 262, 263
- Douglas, Paul, 180, 263, 264, 271*n*, 296
- Douty, H M, 304*n*, 305*n*, 309*n*
- Dunlop, John T., 117–139, 193*n*, 240*n*, 273*n*, 277*n*, 300*n*
- Edelman, Murray, 275
- Einaudi reforms, 311
- Eisenhower, President, 208
- Ellis, Howard S., 124*n*
- Empiricist approach (*see* Inductive analysis)
- Employee and employer consent, 83–84, 94–96
- Employee participation, 96–97
- Employee turnover, 95
- Employers' associations and wage contracts, 133
- Employment and wage levels, 245–247
- Equality of bargaining power, 84–86, 109–111
- Equilibrium analysis, 13–16, 125, 208
 general equilibrium theory, 13, 15, 24–27, 31
evaluation of, 13–16, 208

- Equilibrium analysis, main concepts, 14–16
maximization, 14
self-correction of system, 15
stationary analysis, use of, 13, 14–16
weaknesses in, 15–16
partial-equilibrium theory, 13
particular, 125
(*See also* Wage theory)
- External wage structure, ix, x, 45, 47, 173–205
- Factory labor, wages, 92–93, 141–143
Fair Labor Standards Act, 55, 233
Fellner, William, 22n, 264n
Finland, wage policy, 274–275
Firestone Company, 80–81
Film, theory of, in wage determination, 221–225, 228
Fisher, A. M., 182n
Flanders, Alan, 124n, 305n
Ford, Henry, 46
Ford, Henry, II, 41
Ford Motor Company, 41, 74
France, wage policy in, xi, 275, 307–327
Freud, Sigmund, 48n
Friedman, Milton, 8n, 265n
Friend, Otis O., 46
Fringe benefits, 37, 181–184, 192, 205, 315–318
Full employment, 277–278, 311–312, 325
- Galbraith, J. K., 296
Galenson, Walter, 268n, 309n, 319n
Garbarino, Joseph W., 243n, 271n
Gayer, Arthur D., 118n
General Motors, 41, 46, 55–59, 74, 76, 195, 203, 210, 248, 257, 272
Germany, wage policy in, 271, 276
“Going rate,” 179, 271
Golden, Clinton S., 124n, 265
Goldfinger, Nathaniel, 51–82
Goldner, William, 202n
Gomberg, William, 169n
Gompers, Samuel, 58
Goodrich Company, 80–81
Goodyear Company, 80–81
Government, transfer payments through, 297
Government controls, 278–279, 295, 297, 319
- Government policies, 202, 258–259, 265, 277–278, 306, 311
Great Britain, wage history, 287–292
wage policy in, 276
Grievances, 94
(*See also* Trade unions)
Guaranteed wages, 37
Guthrie, Paul A., 200n
- Hamilton, Walton, 185
Hammerstein, Oscar, 50n
Harris, Seymour H., 27n
Hart, P. E., 270, 289–291
Hayek, F. A., 118n
Hazard, Leland, 32–50
Heilbroner, Robert, 36n
Heming, Nicholas, 44
Hempel, Carl G., 8n
Hicks, J. R., 5n, 7n, 16n, 17n, 244, 263
Hildebrand, George H., 3n
Hillman, Sidney, 70
Holland, wage policy in, 273, 276
Hoover, C. B., 233n
Hours of work (*see* Trade unions)
Hoxie, Robert, 187
Hutchinson, T. W., 119n, 120n, 123
Hutt, W. H., 6n
- Incentive pay, attitude of unions toward, 57, 77–78
and internal wage structure, 166–170, 305
- Income, distribution of, xi, 252–254, 265, 283–287, 315, 322–325
labor's share, viii, 126, 252–254, 260–298
Australia, 273, 292–294
Canada, 293–294
Great Britain, 287–292
New Zealand, 292–294
Russia, 279, 293–294
underdeveloped nations, 263
United States, 280–287
and wage policy, 300
Individual bargaining, 90–91
Inductive analysis, versus deductive, 3–8, 31, 124–126
parallelism with trade union attitude, 6
- Industrial relations in wage theory, viii, 31

- Industrialization and wage determination, 92–94, 120, 123, 125, 137–138, 300
(See also Wage structure)
- Inequities, 47, 56, 145–147, 215
(See also Trade unions)
- Inflation and wage policy, 274, 277–278, 287, 303, 311, 314–315
- Inland Steel Case, 87
- Innovations in wage setting, 46
- Institutional factors in wage determination, viii–xii, 69–76, 98–99, 208–210, 218, 300–302, 318–320
- Internal wage structure, ix, 45, 47, 78–81, 140–170, 215, 228
- International Brotherhood of Teamsters and Helpers, 109
- International Harvester Company, 218
- International Ladies' Garment Workers' Union, 69–70, 108
- Investment factor in wage determination, 219–220
- Isaac, J E, 304n
- Israel, wage policy in, 273
- Issues (*see Wage issues*)
- Italy, wage policy in, ix, 308
- Job clusters, 300–302
 anatomy of, 129–131, 148–151
- Job evaluation, 145–146, 163–166, 301
- Job structure, 141–145
- Johnson, D Gale, 282, 287
- Jostock, Paul, 292n
- Kalecki, Michael, 26n, 262, 263, 277
- Kassalow, E M, 51–82
- Katona, George, 207n, 213n, 219n, 220n, 233n
- Kerr, Clark, 134n, 143n, 247n, 260–298
- Key bargains, 132–134
- Key jobs, 147–149, 152–154, 157, 163
- Key rates, 133–137, 176
- Keynes, John Maynard, viii, 14, 29, 30n, 128, 245, 246, 250, 260, 272
- Klein, Lawrence R, 29n, 30n
- Knight, Frank, 121
- Kravis, Irving B, 322n
- Kurihara, Kenneth K, 29n, 30n
- Kuznets, Simon, 281, 292, 297n
- Labor market, and wage determination, 155–160
 and wage theory, 126, 147
- Labor Relations Council, xi
- Lebergott, Stanley, 310n
- Lester, Richard A, 18n, 22n, 51n, 182n, 189n, 206–235, 207n, 210n, 213n, 215n–217n, 218n, 222n, 227n, 230n, 232n, 233n, 270n, 271n, 313n
- Level of wages, x, 9, 125, 158–160, 177–178, 202, 239–259
- Levinson, Harold M, 284
- Lewis, John L, 70
- Lilley, Tom, 41n
- Lindblom, Charles E, 264n
- Lintner, J, 213n, 219n
- Livernash, E Robert, 140–172
- Longfield, Mountiford, 122
- Lorwin, Val R, 304n, 309n, 319n, 324n
- Low, Josiah Orne, 200n
- Lyon, Leverett S, 246n
- McDonald, David J, 76
- Machlup, Fritz, 7n
- Malthusian doctrine, 119, 261
- Management, criteria in wage decisions, viii, x, 45–48, 206–208
 decision making, 45–50
 ethics, 47, 207
 sources of leadership, 34–36, 49
 status concern, viii, 38, 207–208
(See also Big business)
- Management-administered wage determination, 91–96
- Maichal, Jean, 275n
- Marginal-productivity theory, evaluation of, 18–20, 30–31, 184–188, 221–223
 main concepts, 16–17, 263–264
 pure competition, 16, 25–27
(See also Competitive theory)
- Market factors in wage determination, ix, xii, 155–160, 206–225, 234, 261
- Marshall, Alfred, 4–6, 12n, 122n, 124, 127, 188, 263
- Marx, Karl, 36, 38, 120, 122, 128, 262, 263, 297
- Mass-production industries, bargaining in, 67–83
 automobile, 67–69, 73–77
 basic steel, 67–69, 73–77
 government-enforced, 83

- Mass-production industries, bargaining in, industry-wide versus single-company, 73-77
rubber, 73-77
wage inequities in, 146
- Maximization in economic theory, vii, 122
- May, Stacy, 185
- Means, G., 34n
- Meany, George, 61
- Methods of wage bargaining, 65-69
- Mez, J. R., 122n
- Mill, John Stuart, 264
- Millis, Harry A., 58n
- Minimum wages, federal regulation, 54-57
trade unions, 53-57
- Mitchell, Wesley Clair, 44n
- Mobility, of industry, 216, 228
of labor, 215-216, 229, 259
- Monopoly theory of wages, bilateral, 22-24, 30-31
evaluation of, 22-24
main contribution of, 21-22
pure, 25
- Montgomery, Royal E., 58n
- Moore, Geoffrey, 278n
- Moore, H. L., 126n
- Morgan, J. N., 213n, 219n, 220n, 233n
- Morton, W. A., 278
- Movement of wages, general and particular, 240-241
irregularity of, 257, 258
short-term, 241-251
- Multiemployer bargaining, 109-111, 177, 302
- Murray, Philip, 44, 70, 76
- Mutual consent in wage determination, 83-84
- Myers, Charles A., 7n, 189, 227n
- Nagel, Ernest, 8
- National Labor Relations Board, 87
- National Metal Trades plan, 146
- National War Labor Board, 78, 79, 241
- Natural laws in wage theory, 261-265
- Neoclassicism (*see* Marginal-productivity theory)
- Neufeld, Maurice, 322n
- Newcomer, Mabel, 35n
- Nonagreement, consequences of, vii, 88-89, 103-107, 111
- Noncompetitive theory of wages, evaluation, 20-21, 30-31
- Norton, L. G., 213n
- Norway, wage policy in, 268
- Orwell, George, 173
- Oxnam, D. W., 304n
- Palmer, Gladys L., 125n
- Parker, Virginia D., 124n
- Pattern in wages, 10, 45-46, 177-178, 192, 202-203, 325-327
- Peacock, Alan T., 283n
- Pels, P. S., 305n
- Perlman, Mark, 273n
- Perroux, François, 312n
- Phelps-Brown, E. H., 254, 270, 289-291
- Pierson, Frank C., vii-xii, 3-31
- Pigou, A. C., 5, 6, 122n, 246, 263
"Pigou effect," 245, 250
- Policy questions, 258-259
- Political factor in wage decisions, 50, 127, 186-188, 267
- Power relationships, xi, 49-50, 322-325
- Price factor in wage decisions, 32, 42-43, 210-214, 243-245
- Price movements, 255-257
- Production, compulsion to maintain, 32, 44, 48
as factor in wage decisions, 32, 39-42, 215-217
- Productivity and costs, 42, 215
as factor in wage determination, 209, 214, 215, 228
labor's share, 57-65, 264-266
and real wages, 63, 173-174, 185, 251-252, 264
- Profit factor in wage decisions, 32, 43-44, 207-208, 217, 219-220, 235
- Public interest, 55, 85
- Ratchford, B. U., 233n
- Real wages, 260-298
effect of unions, 82, 285-287
escalator clauses, 58-59, 274
feasible rate of increase, 251-254
in Great Britain, 260-266, 279-292
improvement factor, 58-59, 199-200,

- Real wages, and productivity, 63, 173–174, 185, 251–252, 264
in Russia, 261–262, 279
trends, 117–118, 125, 251–254
in United States, 260–266, 279–292
- Reder, M W, 24n, 274
- Rehn, Gosta, 313n
- Republic Steel, 75
- Reuther, Walter, 42, 61, 70, 76, 77
- Reynolds, Lloyd G, 124n, 189n, 201n, 213n, 216n, 227n, 239–259, 273n, 299n
- Ricardo, David, 36, 118, 261, 297
- Rigidity of wages, 312–313, 327
- Robbins, Lionel, 6n, 118n
- Robertson, Dennis H, 123n
- Robinson, Joan, 23n, 208n
- Romeuf, Jean, 324n
- Ross, Arthur M, 24n, 128n, 172–205, 274n
- Rostow, W W, 118n
- Rothbaum, Melvin, 137n, 240n, 299–327
- Rothschild, K W, 6n, 17n
- Rowe, J F W, 6n, 7n, 126n, 201
- Ruttenberg, Harold J, 265
- Samuelson, Paul A, 122n, 185, 265n
- Say's law, 123
- Schumpeter, Joseph A, 16n, 117, 119n, 123n
- Schwartz, Anna Jacobson, 118n
- Seers, Dudley, 292n
- Seltzer, George, 75n
- Seniority, effect on wage structure, 143–145
- Shackle, G L S, 207n
- Shaw, George Bernard, 49n
- Shuster, Joseph, 22n, 51n, 270n, 273n
- Shubik, Martin, 24n
- Shultz, George P, 189, 191, 192n, 227n
- Simon, Herbert A, 33n
- Slichter, Sumner H, 12n, 126n, 203n, 270n, 310n
- Smith, Adam, viii, 36, 44n, 189, 261
- Social Security Act, 68
- Socialism, 262, 298
- Somers, G. G, 234n
- Standard wage scale, 66, 179, 194–198, 271
- Status, for enterprise, vi, 33, 38, 39, 207–208
for unions, 38
- Stigler, George, 120n, 283
- Straffa, Piero, 118n
- Strike, effects of, 127
right to, 103
- Strike agreement, 103
- Subsistence wages, 262–263
- Suffrin, Sidney C, 265n
- Sultan, Paul E, 284n
- Surplus value, 44, 262
- Sweden, wage policy in, 268–269, 273, 276
- Swift and Company, 132
- Taft, Cynthia H, 247n, 253n, 273n, 299n
- Taft-Hartley Act, 84n, 85, 87, 96, 109, 112
- Tawney, R H, 44n
- Taylor, George W, vii–xii, 83–113
- Technology, as factor in wage determination, 32, 41, 44, 48, 49, 141–143, 154–155, 177, 218–220
- Tennessee Coal, Iron and Railroad Company, 79
- Thunen, Johann von, 122
- Tilove, Robert, 75n, 79
- Tobin, James, 27n
- Trade unions, ethics, 54, 56
goals, general economic, 51–53, 82, 266–269
wage-policy, 53–57, 61
and incentive systems, 77–78
institutional role, viii, 69–81
and internal wage structure, 78–81, 146–147
and labor's share of income, 266–298
and minimum wages, 53–57
and productivity, viii–x, 57–63, 264
relations with management, vi, 209–210, 228
role of leadership, 69–71
types of economic policy, xi, 266–269, 294–298
and wage inequities, 56, 146, 171
wage philosophy, 51–53, 179
- Traditional wage theory, vii, 221–223
(*See also* Wage theory)
- Tripp, L R, 264
- Turner, H A, 11n, 305n
- Union-administered wage determination, 107–109

- United Automobile Workers, 73
Addes-Frankenstein faction, 76
and automatic wage adjustments, 58–59
wage-bargaining behavior, 73–81
wage policy, 61, 195, 210, 248, 257, 271–272
United Mine Workers of America,
wage-bargaining behavior, 73–81, 197
United Rubber Workers of America,
wage-bargaining behavior, 73–81
United Shoe Machinery Company, 213n
United States, wage policy in, xi, 308
United States Rubber Company, 80n
United States Steel Corporation, 74, 75, 79, 132, 203
United Steelworkers of America, 73–81, 110
Vannutelli, Cesare, 326n
Veblen, Thorstein, 44n
- Wage contour, anatomy of, ix, 131, 134
in different countries, 300–302
and labor market, 131, 136
and product market, 131, 136
- Wage determination, decision making in (*see* Decision making)
factors in, institutional, viii–x, 69–76, 98–99, 208–210, 218, 300–302, 318–320
investment, 219–220
market, x, xii, 155–160, 206–225, 234, 261
political, 50, 127, 186, 188, 267
price, 32, 42–43, 210–214, 243–245
production, 32, 39–42, 215–217
productivity and costs, 209, 214, 215, 228
profit (*see* Profit factor in wage decisions)
technology, 32, 41, 44, 48, 49, 141–143, 154–155, 177, 218–220
industrialization and, 92–94, 120, 123, 125, 137–138, 300
and labor market, 155–160
management-administered, 91–96
mutual consent in, 83–84
theory of firm in, 221–225, 228
Wage-fund doctrine, 118–120, 122, 128, 138, 264
- Wage issues, in classical period, 118
current, 9
wage-determination choices, 9
wage-rate levels, 9, 126
wage-rate structures, 9, 126, 138–139
in marginal-productivity period, 121–122
- Wage policy (*See* specific companies and countries)
- Wage-rate adjustments, effects of, 12, 210–235
management attitudes, 206–235
patterns in, 221, 225
- Wage relationships, vii, 142–147, 173, 273–276
determinants of, 11, 147–160, 168–170, 178–205
- Wage Stabilization Board, 183, 184, 191, 199
- Wage standardization, 66, 179, 194–198, 271
- Wage structure, anatomy of, ix, 128–129, 138–139
changes in, in France, Italy, United States, 308–318
national, comparison of, xi, 303–327
pattern of, 325–327
comparative level versus movement, 178–181, 204
diversity of, 326–327
example of, 160–163
external, ix, x, 45, 47, 173–205
fringe benefits in, 181–184, 205, 315–318
and industrialization, 137–139, 159, 300–301
internal (*see* Internal wage structure)
labor-market influence, 155–160
in multiplant companies, 195–198
national comparisons, 299–327
and national resources, 320–322, 325–326
and political power, 49–50, 322–325
and seniority, 143–145
trade union policy, 78–81, 170–171
in underdeveloped nations, 300, 327
in wage theory, vii, 9, 31, 120, 125, 128, 133–134, 138–139, 172, 174–199
- Wage theory, bilateral monopoly, 22–24, 30–31
classical, 24–27, 117–120, 122–123, 208, 261–263, 265

- Wage theory, and collective-bargaining experience, 82, 125
 competitive (*see* Competitive theory of wages)
 contemporary, vii, 8-31, 117, 124-127
 and distribution theory, 118-120
 and effects of industrialization, 92-94, 118, 120, 123, 125, 137-138
 and general economic theory, vii, viii, xi, 118, 120, 174, 239-240
 income theory, difference from classical theory, 27-28
 evaluation of, 29-30
 and findings in industrial relations, 31
 and income analysis, 31
 industrial relations in, vii, 31
 and internal wage structure, 172
 and labor market, 126, 147
 marginal productivity, 16-30, 117-124, 128, 138, 184-188
 (*See also* Marginal-productivity theory)
 and market behavior, vii
 monopoly (*see* Monopoly theory of wages)
 natural laws, 261-265
 noncompetitive, 20-21, 30-31
 traditional, v, 221-223
- Wages, comparisons** (*see* Comparisons of wages)
 components of, 315-318
 definition of, 36-38, 181-184, 240
- Wages, of factory labor, 92-93, 141-143
 guaranteed, 37
 level of, x, 9, 125, 158-160, 177-178, 202, 239-259
 minimum (*see* Minimum wages)
 movement of (*see* Movement of wages)
 pattern in, 10, 45-46, 177-178, 192, 202-203, 325-327
 real (*see* Real wages)
 rigidity of, 312-313, 327
 subsistence, 262-263
 (*See also* Business cycles)
- Wagner Act, 84n, 85, 95, 96, 109n, 112, 113
- Walker, Francis A., 127n, 264
- Wall, J E, 213n
- Walras, Leon, 14n, 263
- Walsh-Healey Public Contracts Act, 56n, 72n
- War Labor Board, 78, 79, 241
- Warner, W L, 35n, 200n
- Weaver, Findley, 292n
- Webb, Beatrice and Sydney, 7n., 265, 270, 295
- Weintraub, Sidney, 3n, 24n
- Wolman, Leo, 125n
- Wootton, Barbara, 11n, 273, 274
- Woytinsky, W S, 7n, 64, 188, 251n, 257n
- Wright, David McCord, 125n, 206n, 262n, 265n